

**Paths to Globalism:
Technology, Culture + Sustainability**

**by
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Abstract

Technological change invariably questions our long-held beliefs of human progress. In a global society, human-centricity is codified into our designs, technical action an exercise of power. Innovators, philosophers, and artists all point to ethical and environmental risks of technology as a pervasive element in our networked existence. An eco-aesthetic dimension reveals those forces illuminated in literature and the visual arts representing social functions in the pursuit of a 'good life', of a sustainable world. Imaginative and campaigning artworks of sublime landscapes carry clear messages across time and space to eclipse the civilization project for our common future and our globalized world. In the fragility of planet earth, the 'unseen' realities of a disproportionate segment impacted by population growth, income inequities, of climate change, and gentrification finds lessons for today's global citizen to revere virtuous cycles of nature, traverse eternal truths, and retain a defiant imagination.

Keywords: Technology; Eco-Aesthetics; Sustainable Development; Landscapes

Dedication

This is in memory of my father who crossed the east-west divide, a love of nature and gardens accompanied the long journey, and has made all the difference for my world ...

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List of Acronyms

GHG	Greenhouse Gas
IPCC	Intergovernmental Panel on Climate Change
NGO	Non-governmental Organization

Introduction

In this thesis, I will argue that technological innovation often comes with unintended consequences that are to the detriment of large segments of the population. To explore this proposition, I will present arguments from a range of theorists who have studied technology, including Martin Heidegger, Herbert Marcuse, and Neil Postman. One of the key thinkers for me has been Andrew Feenberg who suggests there is a lack of democratic practice in technological development and deployment, that technologies have become increasingly narrowed to the interests of the dominant elite. To do this work, I not only consulted the work of these philosophers and social theorists, but I also conducted in-person interviews with several experts including Toufic Boubez, James Cooney, Colin Hansen, and Judith Marcuse who are innovators in the domains of public policy, technology, and sustainability. Their views are presented throughout the thesis.

My argument proceeds as follows. Globalization is multi-dimensional and reaches deeply into aspects of contemporary social life. Reflecting multi-disciplinary elements of the philosophies of technology, science, history, and language of religion, it is argued that globalization as defined with an emphasis on classical forms of artistic expression could halt the trajectory of a technological thought-world created by neo-liberal capitalist power. First, I will describe the works of *Technopoly: The Surrender of Culture to Technology* (1994), *One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society* (1964), and *The Question of Technology* (1954). Then, I will introduce the question of how art, literature and photography in particular, can play a role in the argument.

Understanding “the history of technology, which as much as science and art, provides in part the story of humanity’s confrontation with nature” and insights into our own limitations with nature.¹ Coinciding with the rise of humanism in Renaissance Europe where landscapes and still-life painting proper first emerged, when man became the measure of all things, these two genres of art reflected a growing sense of ownership along with a sense of entitlement regarding the material world. In the eighteenth century, the Industrial Revolution brought with it the first attempts to harvest and harness the

¹Neil Postman, *Technopoly: The Surrender of Culture to Technology*, (New York: Knopf, 1992) 197-198.

planet's resources on a global level. "Nature was no longer something to be feared or revered but studied, understood, tamed, shaped to human will and made to work."²

Largely determined by the structure of technology itself, "*Technopoly* flourishes as a state of mind convinced of technical progress as humanity's supreme achievement." "Technopoly" is a word coined by Neil Postman, a media theorist and cultural critic, to differentiate the current world from the previous social arrangement he called technocratic. His scheme is the movement from tool-using cultures, to technocracies, to technopolies. Technopoly is a "totalitarian technocracy" and "deification of technology".³

In *One-Dimensional Man*, Herbert Marcuse criticized consumerism and "industrial society" where technological rationality permeates every aspect of culture and public life. Modern industrial society has created an affluent society, which in increasing comfort has disguised the exploitive nature of the system claiming to be democratic. This technology thought-world reflects class interests of a 'one-dimensional society' so consumed by maintaining 'the good life' that the real threats to humanity are ignored. Heidegger's thinking, along with ideas expressed by members of the Frankfurt School observes that, in a capitalist regime, technology produces a mass culture that habituates individuals to conform to dominant patterns of thought and behavior.⁴ At an unprecedented moment in planetary history, "capitalism is not simply an economic system of markets and production within a social system of class and culture, but a way of organizing nature".⁵

Martin Heidegger's concern in *The Question Concerning Technology* is that modern society sees technology as something neutral and misunderstands its "essence." A unique perspective about technology by Heidegger breaks down the real ways that technology is "brought forth" or revealed by specific processes of the human mind and abilities such as a silver chalice, the construction of a traditional object that involves "fourfold causality" that includes the ancient elements of material, form, the end result and the maker of the result, which is the human element. In contrast, Heidegger

²Andrew Brown, "At the Radical Edge of Life," *Arts & Ecology Now*, (New York: Thames & Hudson, 2014) 9.

³Postman, 22, 48, 71.

⁴Herbert Marcuse, *One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society*, (Beacon Press, 1964).

⁵Jason W. Moore, "The Road to Ruin: Making Sense of the Anthropocene", *IPPR Progressive Review*, vol. 24(3), 2017: 176.

finds that technology involves a more aggressive “challenging forth,” for example modern dam technology is designed to unlock energy, rather than gather it from the natural flow of a river. It does not work with the processes of nature, but instead interferes with it and reorders it. His discussion of art as technology is relevant today, because he is concerned that “in our sheer aesthetic-mindedness we no longer guard and preserve the coming to presence of art”, that society seems to be less interested as art plays a decreasingly respected and devalued role in our society.⁶

With transformative powers reaching deeply into the economic, political, cultural, technological, and ecological aspects of contemporary social life,⁷ globalization, as shown in classical forms of artistic expression, is rooted in recognizing diverse, complex and multi-dimensional networks that shape the distribution of goods, the movement of populations, and the traffic in ideas of art. Art is one means of giving tangible form to the globalization process.⁸ The ideology of globalism endows globalization with neoliberal values, enlists powerful narratives selling an overarching view of capitalism, and creates collective meanings of idealistic images in a consumeristic, free-market world.⁹ Globalism has ambitions of commercial and political hegemony, and the frequent association in popular thought with techniques that seek economic and political domination.¹⁰

The distinction between globalization and globalism is not to lose sight of the considerable role played by ideas, beliefs, and symbols in shaping the conditions of the social world. Globalization is a set of social processes of increasing interdependence defined and described by various commentators in different, often contradictory ways, and globalisms – political ideologies like market globalism endow globalization (the market process) with their preferred norms, values, and meanings. What makes an ideology ‘political’ is each ideology is structured and set apart by concepts and claims to select, privilege or construct social meanings linked to the exercise of power in society.¹¹

⁶Martin Heidegger, *The Question Concerning Technology and Other*, translated and with an Introduction by William Lovitt, (Harper & Row, 1977) 4, 6, 11, 16, 35.

⁷Manfred B. Steger, *Globalization: A very short introduction*, (New York: Oxford University Press, 2003) xi.

⁸Alicia Walker, “Globalism”, *Studies in Iconography*, vol. 33, 2012: 186.

⁹Steger, *Globalization: A very short introduction*, 112.

¹⁰Walker, 185.

¹¹Manfred B. Steger, *Globalisms: The Great Ideological Struggle of the Twenty-First Century*, (Lanham, Md: Rowman & Littlefield Publishers, 2009) 6, 17.

The ideological reach of market globalism is a compelling story that sells an overarching worldview, thereby creating collective meanings and shaping personal and collective identities. Like all ideology, market globalists engage continuously in acts of simplification, distortion, legitimation, and integration in order to cultivate in the public mind the conviction that globalization of markets is a 'good thing.' Codified by social elites or significant groups to organize the complexity of human experience into simple and understandable images, all to invoke a normative view in time and space and in means and ends to fashion a social reality.¹²

Globalization has been used in the popular press and academic literature to describe a process, a condition, a system, a force and an age that invites confusion with competing labels and different meanings. As globalization is a multi-dimensional phenomenon, it refers to the expansion and intensification of social relations and consciousness across world-time and world-space. Globalization is about growing worldwide interconnectivity. The movement towards globality can be seized upon to signify a social condition or quality of being where people and groups of all kinds reference the globe as the framework for their beliefs and actions, and where globalization conveys transformation.¹³

Postmodernists endorse multiple viewpoints and emphasize the "contingency" – reliance on other factors – of scientific and other rational attempts to make sense of things. In an era living and acting across borders, a growing sense of 'placelessness' brought about by global flows alters our experiences. This new era of postmodernism challenges our modernist ideas of progress and science and invites a thoughtful and pragmatic universalism that explicitly recognizes the uncertainties and contingencies of the global age.¹⁴ Postmodernism draws on some of Heidegger's ideas about technology that go beyond the views of early modern and modern thinkers.

Technology's place can be understood from early modern views of science and practical life to those views expressed in classical thought as establishing grounds and implicitly limiting, the power of technology, the conquering of nature, and the use of energy and force as tools for control has something in common with Heidegger. These

¹²Steger, *Globalisms*, 6, 15.

¹³Steger, *Globalization: A very short introduction*, 7-8, 11.

¹⁴Steger, *Globalisms*, 44.

early modern thinkers are “tied to a larger argument about happiness and what is good”. In contrast, for Heidegger it’s not about dismissing technology, but being consciously aware of its danger by constricting our experience of things as they are and highlighting this phenomenon to find a way of thinking to spare us from its “controlling power within the technological activity itself as technology belongs to the larger political and ordered world”.¹⁵

From Machiavelli through Locke and beyond, many philosophers established a link between modern science and practical life. As a result, they were considered radical in their endeavours. Machiavelli’s pragmatism freed political action from moral considerations as religion and ethics had no place in the political arena except to the extent they served political ends.¹⁶ One of the theorists of the scientific revolution, Francis Bacon, said that philosophy should contribute to human happiness and therefore confine itself within ‘the limits of the science of useful things’.¹⁷ Bacon’s doctrine of ‘Forms’, which foreshadowed a similar doctrine entertained by John Locke, was that science should treat the real and not the nominal essences of things.¹⁸ Locke sought a ground for morality in human nature to enlarge the imperative of happiness, which included the desire for liberty and property in the age of progress.¹⁹

Romanticism’s emergence in late 18th century Europe, embodied most strongly in the arts and literature, was a reaction to science, industry, and, more generally, modernity. Romantic artists emphasized awe, beauty, and the sublime in works that celebrated the powers of emotion and intuition over rational analysis or classical ideals in reaction to the Industrial Revolution. Romanticism privileged the artist to freely document his own subjective experience within the field of tension with man, world and cosmos to show the tacit truth behind the force of nature felt as provocation²⁰ by the Scientific and Industrial Revolutions of the 17th and 18th centuries. By the 19th century, Romantic artists expressed their individuality in subject matter against academic

¹⁵Mark Blitz, “Understanding Heidegger on Technology”, *The New Atlantis*, no. 41, 2014: 63, 79-80.

¹⁶Niccolo Machiavelli, *The Prince (1513)*, Translated and edited by Daniel Donno, 1966-2003, (Bantam Books) 6.

¹⁷Steven B. Smith, *Modernity and Its Discontents: Making and Unmaking the Bourgeois from Machiavelli to Bellow*, (New Haven: Yale University Press) 182.

¹⁸Roger Scruton, *A Short History of Modern Philosophy: From Descartes to Wittgenstein*, (London: Routledge Classics, 1995) 24-25.

¹⁹Smith, 134,182.

²⁰Alexander Rauch, “Neoclassicism and the Romantic Movement: Painting Europe between Two Revolutions 1789-1848,” *Neoclassicism and Romanticism: Architecture Sculpture Painting Drawing 1750-1848*, edited by Rolf Toman, (China: Konemann, 2006) 435.

formulae, a nostalgia for a simpler time before mass production of cheap goods, and a world view that stressed the vastness and chaotic nature of the universe.²¹

Like Romanticism, Realism was a modern movement that sought to paint truthfully and to paint the results of the Industrial Revolution, depicting the building of bridges and trains, and the lives of those affected by these changes. Scientific progress in areas such as photography, with its invention 1839 presented “new challenges and discussions arose about the nature and purpose of art and its relationship to truth and reality”. Modernist thinking extends back to the end of the 19th century when challenges to accepted conventions and definitions of life and art emerged with intensity and originality.²² The artistic movements affected scientific attitudes to nature by inspiring interest in the early field of ecology and the environmental movement.

Originally developed as a social or political wing of human ecology in the 19th century, sustainability offers a path and rationale for the study of that ecology. Yet, there is little indication of historical precedents in the book most often credited with enshrining the principles of sustainability, E.F. Schumacher’s *Small is Beautiful* (1973), to little or nothing in academic studies of sustainability or, correspondingly, in major cultural histories of environmentalism or ecology such as Donald Worster’s *Nature’s Economy* (1994). David Pepper’s survey, *Modern Environmentalism* (1996) identifies Romanticism and Victorian ecological socialism as precursors of contemporary environmentalism but neglects sustainability. In some of those histories, there is an ambivalence about 19th century tradition of green ideas. John Parham argues while ecological sustainability was not literally there as a concept in the 19th century, contemporary patterns of thought did anticipate it. In this period, “literature could articulate principles of sustainability, inform our understanding of how sustainability might be conceptualized, narrated, and even practiced”.²³

Many modern aspects of modern conservation can be traced back to the 19th century; in many cases these themes i.e., water stewardship, wildlife conservation, to

²¹David Martin Gariff, et al. *The World’s Most Influential Painters and the Artists They Inspired*, (New York: Barrons, 2008) 92.

²²Gariff, et al, 93, 138.

²³John Parham, “Sustenance from the Past: Precedents to Sustainability in Nineteenth-Century Literature and Culture,” *Literature and Sustainability: Concept, Text and Culture*, edited by Adeline Johns-Putra et al., (Manchester: University Press Manchester, 2017) 33-34.

the preservation of places of historical and natural beauty were linked to religious, or at least moral thought. “It was a turbulent century of socialism, illuminism (enlightenment) and idealism, in a ‘fascinating and creative age’ of complex ideas, and the seeds of modern notions of sustainability can often be discerned.”²⁴ Sustainability is an endlessly discursive force, as it never stands still even when colonized by ideology and remains a flexible, agile paradigm, perpetually political as we live within nature. Since the 1960s, sustainability is one ongoing response of a technologized culture to nature that captures the essential impact of ‘*technopoly*’ on the path to globalization.²⁵

Technology could, in its advance and transformation, mechanize most socially necessary work, and liberate human beings for greater, creative self-expression and social experimentation uninhibited by competitive national self-interest that currently threatens the survival of humanity.²⁶ In raising political and technical consciousness about the technological thought-world, it calls for a reshaping of attitudes towards the function of technology in society. In considering not only our current needs and resources, but also the structuring of innovation.²⁷

Social movements are no longer temporal markers but transitory displacements that take place indiscriminately across time or space, which frequently chart the shadow or chaotic sides of human life. As a critique of society, can the nexus of technology, culture and sustainability reveal an aesthetic liberation? How can innovators, artists, and crafts people reflect on their work to address class disparity, a changing urban environment, and the rise of new technology? In a new industrial era, is progress and technological change or innovation, the answer to sustain the good life?

To rethink technology, especially in a way that would allow us to use technology to make our current social practices more sustainable and ecologically grounded, I have used this introduction to present a chronological sequence intended to show that we have been moving away from the vision of a sustainable, technologically informed society throughout history. And in place of that kind of society, we have instead seen

²⁴Sarah Lumley and Patrick Armstrong, “Some of the Nineteenth Century Origins of The Sustainability Concept,” *Environment, Development and Sustainability*, no. 6, 2004: 375-376.

²⁵Parham, 48.

²⁶Herbert Marcuse, *The Aesthetic Dimension: Toward a Critique of Marxist Aesthetics*, (Boston: Beacon Press, 1978) 9-12.

²⁷Anthony Akubue, “Appropriate Technology for Socioeconomic Development in Third World Countries,” *The Journal of Technology Studies*, vol. 26, no. 1, 2000: 41-42.

technology become an integral part of the capitalist apparatus and modern aesthetics. Innovators can disrupt design codes, and the conditioned impulses in the civilization project. Imperial globalism reflects unbalanced trade, and the tale of the 'death of nature' in manufactured landscapes. To that end, I want to change our dialogue, and through our broadest valuation of experiences to counter the deleterious influence of technology in our everyday lives. In essence, the Arts has a crucial place to broaden and deepen an awareness of nature and the imperative to imagine a new environmental reality, one of reverence for nature.

Chapter 1.

Innovation and the Good Life

Today, we often think of economically productive innovations as technological; better energy capture (use of fossil fuels), for example, a major driver of the historically remarkable rates of economic growth enjoyed by some relatively highly developed countries in the nineteenth and twentieth centuries. Continuous innovation remains a primary driver of sustainable economic growth; the economist William Baumol has emphasized those societies dependent on stable regimes of rent extraction (levying public fees and taxes), rather than continuous innovation, faced low and hard ceilings that restricted growth. Technology is but one domain in which continuous growth, and positive innovation, is possible.²⁸

A critical view of modern technology has its earlier precedent set by the French sociologist, Jacques Ellul, the American cultural critic Lewis Mumford, and the German philosopher Martin Heidegger who asks us to consider technology, “in Ellul’s words, as ‘the stake of the century’”. While technology appears to better enable what humans have always done, they argue that technology challenges our humanity and innately questions “the very core of who we are and how we live”. An interdisciplinary dialogue continues to be relevant in understanding technology, and matters of reformation both socially and culturally that’s centered on the age-old pursuit of a good life.²⁹

The notion of affluence, embodied in virtually all the technological components from which we might otherwise assemble new patterns of life, constitutes a major obstacle for reform. Design processes that are dominated by specialists provide in part the sense of ubiquity and easily available commodities such as the typical home, automobile in a suburb designed for affluence rather than being participatory or enabling greater ways to enhance the prospects of engagement. In venturing away from the classical design standards of technical and economical efficiencies, the appreciation of individual redesign efforts and when more broadly, systemically reconfigured within

²⁸Josiah Ober, “Explaining Hellas’ Wealth: Fair Rules and Competition,” *The Rise and Fall of Classical Greece*, (Princeton University Press, 2015) 117.

²⁹Eric Higgs et al., *Technology and the Good Life?* (University of Chicago Press, 2000) 2.

society spurs other ways of being and preserves such things as our community gardens, enables less resource intensive transportation systems, and over time redevelops our places of work, residence, and consumption sites. It speaks to the recognition and restraint of the pattern of technology to give focal concerns a central place in our lives.³⁰

Contemporary industrial society tends to be totalitarian, not only in a terroristic political coordination of society, but also in a non-terroristic economical-technical coordination, which operates through the manipulation of needs by vested interests and by virtue of the way it has structured its technological base. This position that I am sketching is consistent with the views of certain members of the Frankfurt School. By the 1950s, Herbert Marcuse perceived that an unparalleled affluent consumer society and the capitalist apparatus of planning and management had produced new forms of social administration and a new conformist society without opposition that threatened authentic individuality and that closed off possibilities of radical, social change. He maintained that “society’s prosperity and growth are based on waste and destruction, its progress fueled by exploitation and repression, while its freedom and democracy are based on manipulation.” In the emergent shifts of computerization and big data, the proliferation of social media and information, and the development of new techniques and forms of social control, the scientific and technological rationalities that Marcuse describes are more relevant today.³¹

Marcuse’s work can be loosely attached to the tradition explored in the critical theory of technology. Andrew Feenberg follows Marcuse in arguing that “technology is ideology” but emphasizes an aspect of Marcuse’s position that’s not broadly known, that “the politics of technology depends on contingent features of technical design determined by a civilizational project and are not due to the “essence” of technology in Heidegger’s sense”. This approach would suggest that alternative designs might further a more democratic society based on self-determination in the technical sphere. In examining, “Is the world ‘the same’ even for all forms of *Dasein* present within a concrete historical situation?”, it confronts the question of historicity. There is a world of significance to who administers and who are subjects to technology, as varied amongst

³⁰Jesse S. Tatum, “Design and the Reform of Technology: Venturing Out into the Open”, Higgs, Eric, et al., Technology and the Good Life? (University of Chicago Press, 2000) 191-192.

³¹Herbert Marcuse, One-Dimensional Man: Studies in the Ideology of Advanced Industrial Society, (Boston: Beacon Press, 1991) xxv, xxx, xxxii, 3.

contemporary cultural regions and groups, and within any one of these experiences of meaning may open-up between different worlds. In observing the essential behavior between the high-capitalist bourgeois and that of the proletariat or small-scale farmer, empathy cannot exist.³²

Technology reveals a bi-lateral phenomenon connecting human beings as both operator and object, and in a society structured around technology, 'technical action' is unilateral, in that exercising technological power is a principal form of power in society. Feenberg relates the technological revealing not to the history of being, but to the consequences of an enduring divide between classes and between rulers and ruled in technically mediated institutions of all types. It's realized through the one-dimensional technical systems that limits designs, narrows the range of interests and concerns that can be represented by the normal functioning of the technology and of those institutions that depend on it. This narrowing is a distortion to the structure of experience and with grave repercussions for human suffering and damage to the natural environment.³³

The environmental movement stirred when North American economies following WWII sought ways to shift an immense military apparatus into peaceful enterprises, encompassing industries, government agencies, and universities that produced commodities for the "good life", and generated ideas on the relation of science and consumer society to the natural world. As Canadian and U.S. economies moved away from the public sector to the private sector, corporations would have to address this shift of government interceding on their behalf in corporate decisions and the public interest. It would give rise to Corporations to claim civil liberties that in liberal democracies are commonly reserved for individuals.³⁴

Technology tends to cast a wider net with its availability, attractive commodities, and the illusion of choice which underwrites a liberal democracy, a realm that fosters the flourishing of technology. Instead, for technology to flourish, what is vital is a distributive power that allocates benefits in principle openly to everyone and in practice as equally to everyone's benefit. People may feel disenfranchised from the common enterprise and

³²Andrew Feenberg, "Replies to Critics". Veak, Tyler J., editor, Democratizing Technology: Andrew Feenberg's Critical Theory of Technology, (State University of New York Press, 2006) 177-178.

³³Feenberg, Replies to Critics, 180.

³⁴Alexander Wilson, The Culture of Nature: North American Landscape from Disney to the Exxon Valdez, 2nd ed., (Toronto: Between the Lines, 2019) 73-74, 131.

frustrated when a vanguard or party arrogates the design and direction of technology to their advantage, and economic complexities overtax administrative resources of a relatively small group. As it turns out, in the conjunction of democratic liberty and technological prosperity one or the other can take the lead, but neither can exceed the other without jeopardizing itself.³⁵

Our models for achieving the good life should be such things as the free and equitable distribution of the benefits of advanced technology, some combination of reskilled work, medical practices that respect the person, architectural and urban designs that create humane living spaces, computer designs that mediate new social forms and possibly other considerations. These promising innovations all suggest the possibility of a broad reconstruction of modern technology, so it activates its intrinsic value and connections with the human world and nature rather than reducing its natural, human, and social environment to mere resources. When modern technological processes are brought into compliance with the needs of nature or human health, they incorporate their contexts into their own structure, as truly as the jug, chalice, or bridge that Heidegger holds out as models of authenticity.³⁶

In a society fraught with technical issues around communications, computers, medicine, and the environment, Feenberg argues for an appreciation of a technological world in living with our devices, and not just controlling them but to find meaning through them. It is an approach drawing on Heidegger's philosophy of art that describes works of art as setting up worlds, realms of meaning to create the life of a community. In the *Origin of the Work of Art (1950)*, the Parthenon does more than shelter worshippers; it configures the space of the city with itself as center, and technologies hold a similar place in our modern life. Heidegger's worlding power of art and the deworlding effects of technology represents the struggle for what must be overcome to conceive a critical theory of technology.³⁷

Technology is socially relative, in that varied interests influence the outcome of technical choices, and in effect restricts various groups in a world that supports a certain

³⁵Albert Borgmann, "Reply to My Critics," Higgs, Eric, et al., *Technology and the Good Life?* (University of Chicago Press, 2000) 361.

³⁶Andrew Feenberg, "From Essentialism to Constructivism: Philosophy of Technology at the Crossroads", Higgs, Eric, et al, *Technology and the Good Life?* (University of Chicago Press, 2000) 313.

³⁷Feenberg, *Replies to Critics*, 193.

way of life of one or another influential social group. For example, the automobile itself is a necessity only in a society built around the automobile, and where private vehicles are privileged over the development of public transit. In having such technical codes realized, the intervention is biased towards a broader social program being reinforced by citizen's perceived self-interest and law, and their political import usually passes unnoticed. That is, there is a relation to be drawn between owning a vehicle, and the notion, for instance of personal freedom, the good life and what it means to call a certain way of life culturally secure. A corresponding hegemonic power appeals to the ideals of social reform in opposition to the materialism of our society. Marcuse would argue in *One-Dimensional Man* the choice of a technical over a political or moral solution to a social problem becomes politically and morally significant. The democratization of technology is about finding new ways of privileging these excluded values and realizing them in new technical arrangements.³⁸

In general, a position agreed on by radical critics of technology, from Mumford and Marcuse on down to the present, the rise of technocratic power of East and West has eclipsed class struggle. Feenberg also argues, technocratic administration remains prevalent and the threat to human agency is a central issue for politics today. Determining what it means to be human includes not just our beliefs but in large part the nature of our tools. Hence the belief and to the extent where we are able to plan and manage technological developments through our public processes and private choices to have some self-determination over our own humanity."³⁹

Technology and globalization are creating winner-take-all superstars in many sectors who enjoy a comfortable, conformist bubble and the danger when a small, self-serving new global elite dominate public discourse, then seek a system tilted even more to their favour. In the West, particularly the United States, the rise of the super elite coincided with a strengthening conviction of what was deemed good for business would be good for the economy and business would dictate what would be best. In the East, as oligarchs plundered most of Russia under the old Soviet system in the late 1990s and controlled the Kremlin, it set the stage for a repressive reassertion of state power.⁴⁰ In a

³⁸Feenberg, *Replies to Critics*, 184-186.

³⁹Feenberg, *Replies to Critics*, 176, 179.

⁴⁰Christia Freeland, *Plutocrats: The Rise of the New Global Super Rich and the Fall of Everyone Else*, (Anchor Canada, 2014) 180, 238, 256.

plutocracy, the state's relevance remains whether it be protectionist capitalism of the west or a state capitalist regime such as Russia or China.

1.1. Globalized Networks and New Frontiers

Capitalism and communism have common roots in that both are products of Western modernization and are dependent on utopian notions. A conception of capitalism promises individual choice and the opportunity that anybody can become wealthy, and of communism privileges, equality, meaningful labour, and collective life without greed as its goals. From the second half of the twentieth century after WWII to the end of 1968, this conflict with its empty rhetoric and false oppositions would encourage advanced thinkers, such as Jacques Derrida, to propose the relativity of all ideologies and the illusionary nature of binaries. In was in this sense, the Cold War created an interpretation of the world, which became a semantic battle waged over language and the meaning of progress as it was as much a political-military struggle.⁴¹

Cultural globalization lays with the diffusion of neoliberal capitalism in ideas, meanings, and values such as political democracy, individualism, secularism, and consumerism. Economic development centred on such values can be seen as necessary yet challenges the ways of traditional cultures and social mores that psychologically inform communities and reinforces the dominance of traditional elites. In a globalizing world, nationalism is a precarious luxury as some nations are at risk of losing their identity in areas defined by religion, history and language.⁴²

The universalism of a country's culture is its ability to establish a set of favourable rules and institutions. South Korean pop culture has grown in prominence to become a major driver of global culture. At its heart K-pop, short for Korean pop music, is the largest export with South Korean music studios directly responsible for shaping the global image with its "distinctive blend of addictive melodies, slick choreography and production values, and an endless parade of attractive South Korean performers." The phenomenon of K-pop as we know it today is a form of consumption aided by

⁴¹John J. Curley, *Global Art and the Cold War*, 1. ed., (London: Laurence King Publishing, 2018) 9.

⁴²Yale H. Ferguson and Richard W. Mansbach, *Globalization: The Return of Borders to a Borderless World?* (Routledge, 2012) 282.

democracy and television.⁴³ In a modern era, the route to power, prestige and economic success lies in high-production technology and human capital. Joseph Nye's ideas on soft power is based on a broader appeal of cultural, ideological, and institutional factors.⁴⁴

Frequently, the spreading of global culture is equated with the spread of US culture. Global popular culture dominated by American products and ideas destroys the diversity of cultural production. The fear and backlash against what are viewed as a leveling force, a sweeping homogeneity of culture in this sense is "soft power" and is, "the ability to obtain preferred outcomes through attraction."⁴⁵ Commercial advertising is a technocratic mechanism of social control for supporting and directing late capitalist, consumer culture. It is a propaganda machine that seeks to determine tastes, desires, and ideology, and can be an argument for the elimination of the television.⁴⁶

The globalization of imagery collides with local views and creates confusion over what to believe and what is appropriate to believe. Higgs suggests the pervasiveness and intent of image generation constitutes a "colonization of the imagination," or a reconfiguring of people's imaginative capacities. Nowhere is this system of colonization more advanced than in the products of Disney Corporation. For years, film and television images shaped the imaginations of millions of viewers. Cultural conditioning from seeing wild animals anthropomorphized and domesticated redraws the boundaries of wild and tame, and primary experience of wild things is exchanged with voyeuristic and mediated experiences. The accelerated reception of themed imagery of a constructed nature are the works of culture industries such as Disney.⁴⁷

Environmental problems can be shown through an assessment primarily caused by our separation from nature, spiritual or otherwise. In diagnosing environmental issues, environmental ontologists study the social sciences of human behaviour in its social and cultural aspects, critiquing individual human attitudes towards nature, founded

⁴³Aja Romano, "How K-pop became a global phenomenon: no country takes its fluffy pop music more seriously than South Korea", (Vox, February 26, 2018). Retrieved 14 November 2021, <https://www.vox.com/culture/2018/2/16/16915672/what-is-kpop-history-explained>.

⁴⁴Joseph S. Nye, Power in the Global Information Age: From Realism to Globalization, (Taylor and Francis Group, 2004) 38-39, 51.

⁴⁵Ferguson and Mansbach, 89.

⁴⁶Trish Glazebrook, "An Ecofeminist Response", Veak, Tyler J., editor, Democratizing Technology: Andrew Feenberg's Critical Theory of Technology, (State University of New York Press, 2006) 46-47.

⁴⁷Higgs, 202.

on the problems of unbridled consumption increasingly apparent within post-war capitalist systems. The social, political, and material problems for environmental ontologists are the symptoms of a larger crisis involving the relation of the self with nature. In locating solutions to environmental problems for ontologists to encompass all entities that exist on the most fundamental level, it's changing the consciousness of individual humans with an ecological, nonhuman natural world.⁴⁸

Like so many issues involving advocacy, environmentalism when articulated often involves a form of prediction or morality tale where warnings serve our fellows by painting a picture of a possible future, of how we can get there if it is good, or how to avoid it if it's bad. Feenberg imagines our environmental issues more appropriately as an impulse for a democratic reform of technology as environmental sustainability was a precursor found to be increasingly aligned with certain forms of modernization. The ecological pressures on consumers and citizens can drive a new technological politics and the reforms needed for an environmentally sound technology.⁴⁹

Globalization has revolutionized global politics. Interconnectedness, a key component of globalization, continues to intensify despite its detractors. The spread of modern technologies helps national frontiers become more porous and produces a kind of shrinking of the world and intensifying a collective consciousness.⁵⁰ Voluntary engagement with environmental processes does underscore the importance of public participation to create a "culture of nature," or to build a critical mass of people who have a stake in the landscapes around them. In creating interests for beneficial environmental reforms, the move to more democratic control in setting sustainable infrastructures is normative cultural change for the development of green technology.⁵¹

The most powerful external force in the human experience is the way we link ourselves together, and of those transformative technologies altering our networked existence. In remote, rural Africa for places like Siankaba, Zambia 'pay as you go' economics of 'airwave' distribution and low-cost phones has changed what it means to be part of a global village. An expanded digital economy does reveal another force that,

⁴⁸Andrew Light, "Democratic Technology, Population, and Environmental Change", Veak, Tyler J., editor., Democratizing Technology: Andrew Feenberg's Critical Theory of Technology, (State University of New York Press, 2006) 143.

⁴⁹Light, 138-139.

⁵⁰Ferguson and Mansbach, 286.

⁵¹Light, 148.

while present in the previous revolutions the magnitude of high-speed networks correlate with the acceleration of innovation and the pace of life. In a relatively recent digital network era, the axiom holds that “a new network stimulates new economic growth”.⁵²

The primary enabling force may be new networks, but in history patterns show it's the secondary effects of such networks that are transformational. Combining low-cost computing and global networks, has changed the primary activity of networks from transferring information to arranging information to creating something new i.e., Big Data and artificial intelligence. The network architecture of a distributed network has replaced the traditional paradigm of centralized trust with the distributed trust of blockchain and the cloud hanging over everything is the challenge of cybersecurity.⁵³ Toufic Boubez⁵⁴ holds that “blockchain as a technology could enable shared governance across states or any kind of system boundaries”.⁵⁵

Technical networks are not overdetermined structures imagined by substantive theorists, such as Heidegger's critiques when looking at ontological contradictions that alters our relation to those freedoms of being when looking at biotechnology i.e., agricultural, and medical practices are not simply altering what is natural. Rather, they are subject to human agency for it is those that design and implement technical systems who can play a key role in the reappropriation of technology from narrowly technocratic or economic goals. The social structure is now increasingly framed by the practices of intellectual labour, displacing prior frames of work and culture. Indeed, individual creativity transcends the bounds of specific institutions to become the dominant way of seeing the world, a world in which every day social and cultural lives are created precisely in a creative synthesis of media and information.⁵⁶

Foucault's idea of the “specific intellectual” can redetermine the technical network to constitute a new class of heterogeneous engineers whose strategies in their technical fields extend the recognized boundaries of networks, often against the will of the

⁵²Tom Wheeler, *From Gutenberg to Google: The History of Our Future*, (Brookings Institution Press, 2019) 13, 21, 158.

⁵³Wheeler, xiv-xv.

⁵⁴Toufic Boubez is an industry expert on big data and cybersecurity, a pioneer in service-oriented architecture, a serial entrepreneur with three successful exits, and CTO and Chief Product Officer at MacroHealth helping to create intelligent healthcare markets.

⁵⁵Toufic Boubez, Interview, By Verna Gene, 23 Feb. 2020.

⁵⁶Simon Cooper, “The Posthuman Challenge to Andrew Feenberg”, Veak, Tyler J., editor., *Democratizing Technology: Andrew Feenberg's Critical Theory of Technology*, (State University of New York Press, 2006) 21, 29-30.

managers. Like Foucault, Feenberg recognizes that intellectual practice is a positive force.⁵⁷ Boubez's innovative practice exemplifies a fundamentally different approach to healthcare and the technology behind it to make lives better and to provide value to society:

... [I]n separating the concepts of large corporate innovation versus small fundamental innovation, the main goal and driver of small entrepreneurs or innovators is how does one make life better or society better or system in society better? In general, established companies have no motive or drive to lead people to the good life, as the main goal of large corporate innovation is to improve existing products, driven by shareholder value and the good life is only for certain people. ... if I can come in and bring down the cost of healthcare for everybody, there's more healthcare to be had, and then more people will have access to healthcare.⁵⁸

We've seen powerful advances and the pervasiveness of our new network technology in connecting devices to the internet of things, generating big data, and yet new networks have always confronted individuals and institutions with massive change. In the 15th century, the original information network was Johannes Gutenberg's innovation of movable type printing and the network of printers would create hubs across Europe to end the monopoly of information enjoyed by priests, and princes in pursuit of power. The free movement of ideas ignited the Revolution, spread the Renaissance, and would become the basis of all that follows as "we are a network-centric species; the networks that connect us have always defined us." It's not new when the introduction of new technology transforms the way in which we connect has come full circle.⁵⁹

1.2. Democratizing Technology and Managing Risk

Today's network provider creates new assets on sunk investments into the physical infrastructure by the very act of carriage. For example, Meta rides the distributed physical network to aggregate information about its users and those users after an algorithm-based analysis of that information are targeted users for advertisements and information, although at times questionable in demographic relevance. A new re-centralization is being driven by the network's creation of a new capital asset, digital information. The combination of zero marginal cost with open

⁵⁷Cooper, 29-30.

⁵⁸Boubez, Ibid.

⁵⁹Wheeler, 2-3, 13, 23.

networks will continue to drive innovation and growth. Our response to the new network's ability to know everything about us will be one of the greatest cultural challenges of the 21st century.⁶⁰

The Internet is the great equalizer. With a lot of information available at your fingertips, it has led to a greater surge in education, awareness, and information driven decision-making. Data sovereignty is a constant battle as throughout human history, information is power. Powerful companies such as Google, Amazon, Meta, and Twitter, in the purported interest of contributing back to society, state that their algorithms are free, and that people can use their technology for free. However, in reality, these corporations own their users' data. Today, information takes on a lot of different aspects, and democratizing technology is an escalating war.⁶¹

The democratization of technology must also be accompanied by a qualitative approach that includes flesh-to-flesh engagement, one that is relational and extends beyond the individual in terms of policy to encourage and to nurture a more human and sustainable world. Researchers note that people in all regions of the world tend to be more isolated using distributed networks, and less likely to engage in face-to-face communication. Judith Marcuse⁶² states this “must be laid at the feet of our obsession with a technocratic approach to our lives and not paying attention to what is of the realm of importance; how we relate to each other, what matters to us, and how we relate to the planet”.⁶³

Marcuse explores far reaching social dimensions in her creative projects, and collaborates with community groups, non-governmental organizations, and educational institutions in Canada and abroad. As she says, “Technology is critical, and access to information, to connect with other people online is important, with others in your own community or around the world, but on its own, there are real dangers.” The fear about technology comes without having other perspectives valued, such as a perspective of what society values in improving the lives of people, having a sense of place in the

⁶⁰Wheeler, 183-184, 191.

⁶¹Boubez, Ibid.

⁶²Judith Marcuse is an artist (dancer, choreographer, director, producer) whose creative projects drew her increasingly to the emerging field of art for social change. Marcuse's early choreographic work often explored social issues such as women and feminism, consumerism, later projects explored environmental issues (EARTH=home) to establishing the *International Centre of Art for Social Change*.

⁶³Judith Marcuse, Interview, By Verna Gene, 20 Feb. 2020.

world, and going in directions of non-traditional values represented by advertisements and how it relates to capitalism.⁶⁴

Marcuse, who has undertaken many projects in the northern regions of Canada, is sensitive not to speak out of turn as a white settler about First Nations indigenous culture. She states: “there are traditional ways of making decisions, creating consensus, solving what can be intractable problems seemingly in those traditions that are far superior to how we’re operating now.” In considering the speed at which we engage technology, she adds “it limits our ability to reflect, and without reflection, we dive headlong into all kinds of situations, which can be productive, often unsustainable and are quick fixes. Collective reflection is important to embody.”⁶⁵

Dialogue becomes critical, and leads us to consider the following questions: who’s in the room? who has power? how do we equalize power in a dialogic process? Transformation happens when the respective interests of the *micro*, the *meso*, and the *macro* are all met. The goal is not to promote one side or to have supremacy, but to find a third way. It’s in the processes of being with other people, devising, exchanging, challenging, and taking risks collectively that change happens.⁶⁶

In 1997, the World Bank was taking a long view as to how mining would evolve in the next twenty years. James Cooney shared a story about an exploration company that had been operating for a long time in Papua New Guinea, being challenged by a local indigenous leader in the Amazon, who told company representatives, ‘we want the same deal you gave those people at Papua New Guinea’. “It was a wake-up call, communities were no longer isolated or remote, because the *Internet* was creating a global communications network. Communities were acquiring a certain amount of clout as a consequence of the global technology revolution.”⁶⁷

No mining company could do anything that was objected to by local communities or allies in civil society without it being instantly known everywhere. Communities had no legal means to close a mine, yet what was emerging with local communities was the ability to leverage all their global alliances. In this context, Cooney originated the

⁶⁴Marcuse, [Interview](#), *Ibid.*

⁶⁵Marcuse, [Interview](#), *Ibid.*

⁶⁶Marcuse, [Interview](#), *Ibid.*

⁶⁷James Cooney, Interview, By Verna Gene, 8 Feb. 2020.

metaphor of “social license to operate”. James Cooney⁶⁸ has extensive experience in international mining and is the first person to advocate the integration of sustainable development with mining. His company, Placer Dome, was the first to adopt a sustainable development strategy and program.⁶⁹

Cooney advanced sustainable development as a social and political risk management strategy. He challenged the dominant corporate cultural frame as a ‘norms entrepreneur’, promoting the evolution of corporate and public policy with respect to the interaction of mining and society. Cooney imbued certain values and personal competencies to translate guidelines or normative concepts into individual and corporate practices that influenced the decisions, actions, and strategies of a mining company⁷⁰, and reflected on:

... [T]echnology from the very beginning started with ‘norms’, as with the Buddha, who set out with the idea of how do you end suffering? And came to the conclusion, you end suffering through detachment. Aristotle wondered, what is the happy life? The fulfillment of one’s individual potential, for others, the fulfillment of communal potential. A tension exists between the individual satisfaction and the common good. The human goal, in many cases, is simply a matter of problem solving for the individual and the collective, and so technological advances are not all based on the profit motive.⁷¹

Placer Dome was the first foreign company into South Africa after apartheid ended; and the first into Chile after the Pinochet regime. Cooney shared a dialogue between himself and company mine manager stationed in Chile who said, “we cannot have human rights in our sustainable development policy”. “It’s far too political in Chile for a company to advocate human rights,” Cooney proposed, “what if we just say, fundamental freedoms”. This term was unobjectionable and became a focus of corporate sustainable development thinking as it evolved in the late 1990s to 2010s. Cooney recounted the story of a young mining engineer who understood fully the set of sustainable development concepts being promoted, saying, ‘okay, you guys can think

⁶⁸James Cooney played an active role in the Global Mining Initiative and the Mining, Minerals, and Sustainable Development project from 1999 to 2002; the World Bank’s Extractive Industry’s review from 2002-2004; the Canadian government’s National Roundtables on Corporate Social Responsibility and the Canadian Extractive Sector in Developing Countries from 2006 to 2007; and the global consultations leading to the adoption by the United Nations, in 2011, of the Guiding Principles on Business and Human Rights.

⁶⁹Cooney, *Ibid.*

⁷⁰Hevina S. Dashwood, *The Rise of Global Corporate Social Responsibility: Mining and the Spread of Global Norms*, (Cambridge University Press, 2012) 176.

⁷¹Cooney, *Ibid.*

that there's all sorts of reasons for adopting sustainability as a competitive advantage, but the main reason is this policy expresses, who we are,' and Cooney noted "that was so powerful!"⁷²

Cooney's first-hand experiences with 'South Deep', a mine the company acquired in South Africa, where it was necessary to restructure the operation to make it less labour intensive and both safer and healthier for employees. Looking at this challenge through the policy lens of corporate social responsibility, the mine manager asked: "If we retrench a couple of thousand workers, how do you replace incomes for their families?" The solution was "The care project"⁷³, an innovative approach to replace incomes by job training for workers' family members and educating local villagers in palliative care for HIV victims. The initiative was recognized by World Bank's 'Global Marketplace Award', a first for a corporation. This experience reinforced Placer Dome's sustainable development policy as good risk management, as an inspiration for innovative programs, and as a global example for other firms.⁷⁴

Having been chosen public policy committee chair of the *International Council of Mining and the Environment* on the deficits of environment, a global arena for major mining, Cooney said that, "we as an industry have got to adopt sustainable development; we need to be able to engage effectively with the World Bank and United Nations agencies as they're the only major ally we have in developing countries". Cooney recounted in the meeting of the twenty-five companies that met in London, a group of the most worldly-wise mining representatives collectively rejected sustainable development, saying, 'we're not social democrats, we're not left wingers, it's all political'. In the group, a well-respected landscape architect involved in mining reclamation projects began, 'I don't like the look of sustainable development; I don't like the smell; I don't like the taste, it sticks in my throat, but I'm telling you, gentlemen, I think for our own good, we have to swallow this' and reluctantly the rest agreed, and the mining industry adopted sustainable development.⁷⁵

⁷²Cooney, Ibid.

⁷³"Placer Dome a Winner for Social Development Project", Canadian Mining Journal, Feb 2002.

⁷⁴Cooney, Ibid.

⁷⁵Cooney, Ibid.

Global well-being is about allowing wealth to go where it can be most productive and most effectively reduce gaps in inequality. The advocates of technology present most technological advances as being for the common good, something we also see from those promoting globalization. However, there are unintended consequences with new technologies and globalization efforts that are of considerable importance in the long run. An accentuation of individualism and selfishness, with large aggregations of wealth resulting as a distortion. The most significant impacts of virtually any technological development since the Industrial Revolution have been the unintended consequences.⁷⁶

Although technology, science, and industrialism have brought enormous benefits, there are risks associated with these innovations, too, unintended consequences for the environment, human health, and social well-being. Ulrich Beck, who has described the current social order as the risk society, was one of the first sociologists to recognize this paradox is increasing rather than being abated by scientific and technological progress. Globalization challenges state territoriality and sovereignty, reduces authority and its citizens to act unilaterally or independently, and compromises the economic autonomy by forcing states to act and adopt policies according to the whims of highly mobile capital. In an era in which all risk, no matter how finite, becomes ethically unacceptable, the limit of progress still captures the collective angst of a global society ill at ease, and is a bellwether of the social psyche.⁷⁷

Colin Hansen served as a member of the BC legislative assembly⁷⁸, and after public life, President of Advantage BC, a non-governmental organization dedicated to promoting BC for international business and Chair of Fraser Basin Council, a not-for-profit advancing sustainability throughout BC. Hansen, an advocate for strong sustainable investment practices and clean technology, sees in general that people are looking for security for their families. "It is the betterment and improvements for a standard of living, whether that is in a Western state or a developing country and increasingly, people are recognizing technology can help achieve these goals for them

⁷⁶Cooney, *Ibid.*

⁷⁷Darryl S. L. Jarvis, "Risk, Globalisation and the State: A Critical Appraisal of Ulrich Beck and the World Risk Society Thesis," *Global Society: Journal of Interdisciplinary International Relations*, vol. 21, no. 1, Jan. 2007: 23, 26, 46.

⁷⁸Colin Hansen is a former provincial politician from 1996 and chose not to seek re-election in 2013, during which he held various cabinet positions including Deputy Premier, Minister of Finance, Minister of Health, Minister of Economic Development and Minister Responsible for the 2010 Olympics.

and their families.” The innovation cycle is exponentially growing for use of technology in society; ultimately, it must be driven by demand.⁷⁹

In less developed parts of the world, there is greater opportunity than in Western industrialized countries to get to a level of sustainability. In establishing new opportunities, it’s not likely to threaten someone’s status quo to achieve those changes. The reality is that there’s so much inertia when it comes to adopting some of the changes available to us as a society in most developed and developing countries. For example, in the fossil fuel industry around the world, much of the economic activity that surrounds fossil fuel is incredibly expensive. The sooner countries can get to sustainability means it will attract the investment community that will want to come in and make the kind of investments that would be there for the long term. The countries that get to sustainability sooner are going to be rewarded.⁸⁰

From a technological perspective, there are interesting examples of economically challenged countries that have leaped frogged more developed countries due to a lack of infrastructure. In Africa, or in some parts of Asia, for those areas with no existing infrastructure, it’s easy to embrace the latest technology and cellular use is a fascinating experiment. In the West, we’ve gone through multiple phases of technology i.e., telephones, wires, virtual infrastructure, and once we rely on technology, it’s harder for us to embrace the next wave of technology.⁸¹

The lack of democratization in technology has allowed ruling classes and the elites to hang onto information to their advantage, which leads to corruption. A constant theme are the inefficiencies, a class discrepancy between the rich and poor. What goes hand in hand with corruption is rampant exploitation of country resources and, people have no means of access to knowledge and technology, and exposes:

...a constant war to mis-educate consumers, to drive demand towards something that is more palatable to the company. The concept of ‘influencers’ is one small manifestation of people on social media ... their whole job is to be visible, flashy, have a lot of followers and influence these followers towards certain products ... everything circles back to information.

⁷⁹Colin Hansen, Interview, By Verna Gene, 15 Feb. 2020.

⁸⁰Hansen, Ibid.

⁸¹Boubez. Ibid.

Among the many ways we can understand technology, its function as a tool is one of the important meanings. Technology as a tool can help with sustainability, maintainability and renewability. Even with large corporations, there's more emphasis these days on being green, renewable, organic, sustainable; large corporations want to be altruistic, want a sustainable, renewable living planet not of itself, but because of educated consumers.⁸²

Technology as an aspect of our common life demands an appreciation of its substance in larger, holistic technical systems. In configuring and designing cities, transportation systems, communication media, agriculture, and industrial production, it reveals a political matter. Similarly, the more choices we make about health and knowledge in designing the technologies on which medicine and education increasingly rely on implicate power structures. For knowledge to be balanced, the narrow interests represented by the actor must be expanded making it more difficult to offload feedback or consequences from the object onto disempowered groups. In shattering the illusion of transcendence by revealing the feedback loops, the democratization of technology exposes the need of holistic design from the beginning.⁸³

Technological design is inherently political, consequently constraints on design choice are not an essence of technology but evidence of hegemonic control of the design process by privileged actors.⁸⁴ In the form of ecological management, design in a technological culture is of interest as it embodies simultaneously the greatest hope and peril in working with nature. It compels us with the best of intentions to think creatively and constructively in thoughtful interventions, and, yet invites massive problems for the quality of our designs. The technological patterns and impulses of those design practices are what we are trying to avoid and knowing that "marks will continue to be etched in nature, we should think about how to remove or make such marks less damaging."⁸⁵

⁸²Boubez. Ibid.

⁸³Feenberg, *Replies to Critics*, 182, 184.

⁸⁴Veak, Tyler J., editor. *Democratizing Technology: Andrew Feenberg's Critical Theory of Technology*, (State University of New York Press, 2006) xiii.

⁸⁵Higgs, 196.

1.3. Aesthetics of Beauty and Nature

Nature's history is shaped as an object, an entity where a "liberation of nature" cannot look back to a pre-technological stage, but instead advance the use of those achievements of technological civilization to free man and nature from an exploitive existence to science and technology. In an established society, nature itself is exposed to more control and in effect becomes another dimension for the control of man and by extension a societal system of power. In the reified forms of nature – commercialized nature, polluted nature, militarized nature – the striving of nature's life force and of man's life environment are rather intertwined subjects being cut down in an ecological and an existential sense.⁸⁶

Marcuse contends the world of nature has more benefits than the capitalist treatment of materials extracted from the earth's crust and transformed with our technologies, and more so than through the discoveries of the natural sciences. Consumed by this obsession to transform the natural environment and its resources into commodities, blinds us to the reaffirming other side of humanity's interactions with nature. As a rich source and foundation of our sensibility, the direct experience of nature made available to us through our senses is primarily one of aesthetic form. The aesthetic faculties of a sense of beauty and intrinsic value that arises contemplating the colours, shapes, movements, textures, and surfaces of the natural environment and its plant and animal inhabitants, opens new relationships and a vital sense of human freedom.⁸⁷

The cultural view summarized by Cosgrove, is that "landscape is a way of seeing that has its own history, but a history that can be understood only as part of a wider history of economy and society." Cosgrove sees the evolution of the landscape idea as unique to capitalistic societies in Western civilization between CE 1400 and 1900 with new ways to see the external world and nature coinciding with new land use practices.⁸⁸ A sense of aesthetic pleasure and emotional enticement is central to interactions with nature as introduced by Edward O. Wilson (1984). In the study of aesthetics, or in the language of contemporary criticism, a distinction was drawn between the sublime and

⁸⁶Herbert Marcuse, "Nature and Revolution (1972)," Marcuse, Herbert, et al., *The Essential Marcuse: Selected Writings of Philosopher and Social Critic Herbert Marcuse*, (Boston: Beacon Press, 2007) 235.

⁸⁷Marcuse, *Nature and Revolution (1972)*, 233-34, 239-240.

⁸⁸Denis Cosgrove, *Social Formation and Symbolic Landscape*, (London: Croom Helm, 1984) 1-2.

beautiful in the philosophical explorations of Edmund Burke (1757). For the next two centuries, cultural critics and artists' attention would have focused mainly on human artistic creations to the neglect of nature. As a result of a view dominating Western thought for centuries, the neglect of nature is namely, cultural symbols and art forms to create the aesthetic experience of the way humans see the environment and the symbolism we attach to environmental objects.⁸⁹

In our western landscapes, many photographers have struggled with the beauty of ugliness to bring to the fore issues of land use and forgotten places. The medium of photography invites artists, critics and environmentalists to consider imagery and the artist's intent to document or aestheticize. Photographs capture the wounds on the land, sculptural ruins or picturesque, graphic aerial shots or colorfully polluted waters so mesmerizing to the eye overwhelms place with imagery, and sheer misery or horror is aestheticized. Instead, beauty can also convey difficult ideas by engaging viewers who might otherwise look away. Artists who choose beauty for tragic subject matter are successful as they're fully aware an aspect of their choice becomes a conscious means to counter brutality.⁹⁰

Lucy Lippard considers a photograph as a field rather than an artifact through the creative process of sequence, layers and periphery even when the number of images is limited. In this sense, "photography is the original readymade, found in the moment it is taken and again in the moment it is perused." The fragmentary nature of landscape photography without verbal contextualization can be implicated in the failure to articulate the social importance of landscape and land use. Historically, landscape photography has been a weapon in the battle to save the environment. With a critical edge, photography frames a unique way of communicating embedded meanings on many levels of places to those who will never see them first-hand.⁹¹

In light of how documentary images are used in the everyday, the advertising industry has co-opted with business interests to reduce our reality to stereotypes, which conceals the diversity of the phenomena of reference and who benefits from the social

⁸⁹Judith H. Heerwagen and Gordon H. Orians, "Humans, Habitats, and Aesthetics," Kellert, Stephen R., and Edward O. Wilson, editors, *The Biophilia Hypothesis*, (Island Press, 1993) 141-142.

⁹⁰Lucy R. Lippard, *Undermining: A Wild Ride through Land Use, Politics, and Art in the Changing West*, (The New Press, 2013) 174-176.

⁹¹Lippard, 169-170.

inequities. Landscape photography has a unique way in how documentation can be redefined by photographers: The 1970s New Topographers, a group who insisted on context and seriality that is quasi-narrative, though still fragmentary to combat the banality of idealized landscapes. Robert Adams would write, “We rely, I think, on landscape photography to make intelligible to us what we already know,” whose serial approach to capturing an eroding landscape would give it a new social life. Our landscapes offer three truths: geography, autobiography, and metaphor, and when combined the kinds of information are cumulative in effect and reinforce the aim to keep intact, an affection for life.⁹²

Freud’s later writings, with the introduction of the life instinct of Eros, denote a larger biological instinct. As a transformative power, the search for fuller gratification transcends the dehumanizing forces of performance and objectification to attain rewards or satisfaction in the struggle for existence. In considering the idea of non-repressive sublimation, Eros becomes a biological drive striving to “form living substance into ever greater unities, so that life may be prolonged and brought to higher development.” The cultural process of building higher forms of freedom has aims to realize its own projects such as pleasurable work relations to individuals, nature tended to as a garden, and the creation of luxury all flows from the pleasure principle.⁹³

The human affinity for life asserts the idea of biophilia to realize our fullest potential will depend on a web of complex and subtle emotional, intellectual, and physical relationships with a diversity of life surrounding us. Edward O. Wilson (1984) defined biophilia as the “innate tendency to focus on life and life-like processes” for a human ethic of care and conservation of nature.⁹⁴ Aldo Leopold reminds us more than a generation ago, “[a]ll ethics so evolved rest upon a single premise: that the individual is a member of a community of interdependent parts.” The land ethic championed by Leopold refers to the responsible use and protection of the natural environment through conservation and sustainable practices of the earth and its resources.⁹⁵

⁹²Lippard, 172-174.

⁹³Herbert Marcuse, *Eros and Civilization: A Philosophical Inquiry into Freud*, (Beacon Press, 1974) 205, 211-213.

⁹⁴Stephen R. Kellert and Edward O. Wilson, editors, *The Biophilia Hypothesis*, (Island Press, 1993) 20-21, 456-457.

⁹⁵Kellert and Wilson, 26.

Expansion and stewardship may appear at first to be conflicting goals, but they are not. The drive toward perpetual expansion is essential to the human spirit, but sustaining it compels the most delicate, conscious stewardship of the living world. A conservation ethic designed to avail to the impulses of personal freedom is understanding the mind more an organ of survival, the greater the reverence for life for rational reasons. The depth of the conservation ethic will be to the extent the two approaches to nature are used to reshape and reinforce the other. The contradiction can be resolved by changing its premises into forms more suited to ultimate survival, which Wilson speaks to as the protection of the human spirit.⁹⁶

The essence of art and of science is a carefully chosen part to represent the whole. In art, the inner world of the mind is explored, whereas in science the domain is the external world at large and progressively, the workings of the mind as well. As an outcome of evolution, the organic mind relies on special forms of analogy or metaphor to expand memory and information speeds for a creative imagination. While the artist is aware which sensibilities are commonly shared by his viewers to bring about a desired effect, it's not only sublime emotion but also, the intensity of the artist's process to generate the impulse and transfer those emotions precisely. Picasso would define art as the lie that helps us to see the truth, which expressed in both art and science since each in its own way seeks elegance through latent power and simplicity.⁹⁷

Art becomes a framing device for visual and social experiences. In photographic art form, the frame freezes a moment in time and such documentary effects of the camera remind us of what is real, although with uncertainty as digital images altered through Photoshop can influence what is seen. Yet, photography still powerfully conveys a direct experience like no other medium situated in-between art and life. Dorothea Lange once stated, 'A camera is a tool for learning how to see without a camera.' An ability to change frames on the spot, offers a set of multiple views of how space can be seen or used is one alternative, now theorized as sequencing can provide information.⁹⁸

⁹⁶Edward O. Wilson, *Biophilia*, (Harvard University Press, 1984) 138-140.

⁹⁷Wilson, *Biophilia*, 62-66.

⁹⁸Lippard, 167-168, 171.

Photographers make artistic choices on what is excluded from the frame and brings into focus discussions on the criticality of edges and the ethics of cropping. Those formal decisions on visual margins, as well as on marginality in the social landscape are ideas constructed on visibility and invisibility, in and out, public and private. Jan Tumlir has proposed, the photographic process is subtractive, 'literally a cut into the space time continuum. It is a minute, fragmentary part of an infinitely greater whole – the world that is shaved at its edges.' In creating powerful images, the intent of the artist in representing the world is not just what we see and more to what is not seen.⁹⁹

New visual forms would emerge in a nuclear age to find ways to make energy and motion visible. Through representation, art reveals the threat of radiation invisible to the human senses but in images of an exclusion zone after a meltdown or landscapes and towns after a nuclear disaster of depopulated spaces becomes poignantly visible. Since 1945, science in power to the point where incalculable risks have become a threat to humanity. The cultural impacts of advanced technology from nuclear devastation, radiation waste disposal, climate change to species extinction marks the divide between past-industrial society and present techno-scientific society.¹⁰⁰

The invisibility of the bomb's aftereffects has been shrouded and shaped mainly from the victor's point of view. In the collective imagination, the reality of nuclear peril shifts those images of the distant mushroom cloud, or city turned to ash, rockets in the atmosphere, the tapered cone of icons smoothed by time and use.¹⁰¹ The Greenpeace movement, chronicled in the expedition to Amchitka would open another world arriving at Akutan Bay, Alaska as with landing on the moon in 1969 connecting technology to metaphysics, and gave Greenpeace a symbol of magic. In ascending the peaks of Akutan mountain, the forces of nature felt in the gale winds to become half-floating, half-bird, half-spacemen along the jagged terrain would inspire the laying of the ecological and peace symbols staking a claim on this planet. By landing on Amchitka, the Janus symbol of the other face of technology, would call out waste-makers and ruin-bringer,

⁹⁹Lippard, 169-171.

¹⁰⁰Vancouver Art Gallery, and John O'Brian, Bombhead, (2018) 12-14.

¹⁰¹Robert Del Tredici, At Work in the Fields of the Bomb, (Douglas & McIntyre, 1987) ix.

poisoner of beautiful worlds, as a way to awaken people's minds from dreams of conquering the universe to the reality of the natural world disintegrating around them¹⁰²

Reclamation art does feature nature in response to society's interventions and, differs from the eco-art of today to consciously raise ecological issues and climate change to infiltrating infrastructure systems. While there are no illusions of anything being returned to its original form, art's purpose, as defined by James Baldwin, is 'to lay bare the questions which have been hidden by answers'. A wild ride through a western landscape narrates states of flux: beauty and foreboding, flashing snapshots of damage, change and potential. Aldo Leopold wrote: 'We abuse the land because we regard it as a commodity belonging to us. When we can see land as a community to which we belong we may begin to use it with love and respect'. On behalf of the land and everything living on it, new image wars must be waged.¹⁰³

The conservation ethic of nature runs much deeper to a biological imperative of self-interest. In pursuing the "good life", it's through our broadest valuational experience of our environment and being conditioned by nature into a higher form of human functioning. Nature's biodiversity is worthy of sustaining for our mental being and the quality of life it offers for a satisfying and meaningful existence.¹⁰⁴ A vision for humanity is an expanding and unending future of an environmental ethic, one invoking the realization the true frontier for humanity is life on earth and furthering the exploration and transfer of knowledge into the sciences, arts, and practical affairs.¹⁰⁵

¹⁰²Robert Hunter, *The Greenpeace to Amchitka: An Environmental Odyssey*, (Arsenal Pulp Press, 2004) 105-107.

¹⁰³Lippard, 179-181, 189-190.

¹⁰⁴Stephen R. Kellert, "The Biological Basis for Human Values of Nature," Stephen R. Kellert and Edward O. Wilson, editors, *The Biophilia Hypothesis*, (Island Press, 1993) 60-61.

¹⁰⁵Edward O. Wilson, "Biophilia and the Conservation Ethic," Stephen R. Kellert and Edward O. Wilson, editors, *The Biophilia Hypothesis*, (Island Press, 1993) 39-40.

Chapter 2.

Mirrors of Globalism

One of the great achievements of modern economics shows the sense in which, and the conditions under which, Adam Smith's conclusion accurately reflects the Industrial Revolution in his magnum opus, *The Wealth of Nations* (1776). During the worldwide economic downturn in the 1930s, the Great Depression would show the failings of the market system, and the societal impacts from mass inequality to unlivable cities marred by pollution and decay. These free-market policies based on the profit motive to drive market efficiencies have been widely rejected in the more advanced industrial countries, and an active debate continues about the appropriate balance between government and markets. The Washington Consensus policies are sometimes referred to as neo-liberal, based on market fundamentalism of the laissez-faire policies made popular in some circles of the nineteenth century of a competitive equilibrium in which Smith's invisible hand works perfectly. Free, unfettered liberal markets working perfectly has been shown to be a simplistic model of the market economy, as government responses are needed to maintain financial market regulations and rules of law.¹⁰⁶

Smith's objection on forced trade was towards rulers or monopolies orchestrating a protectionist network to maintain a positive balance of trade by restricting imports and exports. This would encourage subversive economic activities as trading companies given monopolies were designed to restrict others from trading with colonies, and exclusivity would incent trading partners to devise their own restrictions. From the true role of commerce in promoting international peace and understanding between nations, such restrictions would be a source of conflict as trade wars would escalate into real wars. The presumption to direct the flow of capital investment harmed those nations instead of allowing an 'invisible hand' lead that capital to the economic sector where it would be most productive, suggests there can be order without design.¹⁰⁷

¹⁰⁶ Joseph E. Stiglitz, *Globalization and its Discontents*, (New York: W.W. Norton, 2003) 73-74.

¹⁰⁷ Jonathan Conlin, "Adam Smith", Conlin, Jonathan, editor, *Great Economic Thinkers: An Introduction – from Adam Smith to Amartya Sen*, (Reaktion Books, 2018) 35-37.

Globalism's legacy endures as the great ideological struggle of the twenty-first century. Reflecting its nineteenth century predecessor of liberal markets, market globalism of the 1980s and 1990s would represent an 'experiment in unleashing the utopia of the self-regulating market on society'. From its earliest inception in the Thatcher and Reagan years of the 1980s, the neoliberal project would bear out the frequent and extensive use of state power to change the old welfare structures and create new laissez-faire policies. Similarly, the global free market since its creation, expansion and protection would demand immense infusions of central state power, and the competing interests that would ensue with market-globalist elites striving for an ever-expanding mobility of capital and the state's security logic and measures calling for inspection, surveillance, other restrictions on the movement of people, goods and information across national borders.¹⁰⁸

Capital does reflect the state of development and prevalent social relations in a society. The distribution of wealth is shaped by institutional changes and political policies. As Piketty holds, "if democracy is someday to regain control of capitalism, it must start by recognizing that the concrete institutions in which democracy and capitalism are embodied need to be reinvented again and again".¹⁰⁹ In the United States, Piketty and Saez found in the mid-2000s an elite "one percent" from the mid-1970s had amassed an ever-growing share of the national income and would later become fuel for the political slogans of the Occupy movement. What remains in the twenty-first century is the history of capitalism has yet to be written and its politics, rather than the natural operation of the market that will finish the story.¹¹⁰

Globalization as a deep historical process reflects the movement of ancient populations, long-distance cross-cultural trade, spread of world religions and the diffusion of technologies. Accelerated globalization in contemporary terms does differ from that of earlier epochs as today's globalization process compresses space and time with 'larger volumes of material moved, speeds with which they are moved are faster, and the diversity of materials (matter, energy, information) moved is greater'.¹¹¹ Cultural efflorescence through intercultural mingling has emerged from close encounters at great

¹⁰⁸Steger, *Globalisms*, 164.

¹⁰⁹Thomas Piketty. "Putting Distribution Back at the Center of Economics: Reflections on Capital in the Twenty-First Century", *Journal of Economic Perspectives*, vol. 29, no. Number 1-Winter 2015: 70, 87.

¹¹⁰David Singh Grewal, "The Laws of Capitalism," *Harvard Law Review*, vol. 128:626, 2014: 627, 667.

¹¹¹Jan Nederveen Pieterse, *Globalization and Culture: Global Melange*, (Rowman & Littlefield Publishers, Inc., 2015) 29-31.

rivers, along deltas and in major centres or cities where trade and travel converged such as in Moorish Spain's al-Andalus or China's Middle Kingdom. The high-minded visions of human integration would conspire to cross-cultural exchanges by associating human bodies and places, and accompanying contemporary globalization are the rising inequalities.¹¹²

Globalization is at a crossroads. Today's globalization reflects the lens of special interests and ideological mindsets impacting many of the world's poor, the stability of the global economy, and the environment of our planet. The concern with globalization is how it's been managed with the transition from communism to a market economy where poverty rose as incomes fell, except for a few Eastern European countries, China, and Vietnam. It would seem simpler to abandon globalization, but it's neither reasonable nor desirable. Globalization brought benefits with East Asia's success on opportunities for trade, and better access to markets and technology. Globalization wrought awareness about health and well-being, as well as activating a global civil society fighting for more democracy and demanding social justice.¹¹³

The Washington Consensus policies of liberalization, privatization was not fully embraced by China who would choose an alternate strategy of gradual reforms. Land controlled by the state would show yields could be gained from partial and limited reforms. It started with shifting agricultural production from a commune or collective system to the individual responsibility or partial privatization system. It was a remarkable achievement, involving hundreds of millions of workers, sequenced and paced in a few years to engender widespread support and deep reforms as central government did not need to force this change, it was willingly accepted. China's long view of societal stability with a two-tier pricing system to avoid inflation and a process of creative destruction of an old economy to a new one would extend to entire communities, with the fastest growth and largest reduction in poverty.¹¹⁴

China, once again, would borrow ideas on modernization from the West resembling the nineteenth century idea of *Zhongxue weiti, xixue weiyong* for its own social purposes, In an effort, to converge Chinese 'substance' and Western 'practical

¹¹²Pietrse, 32-35.

¹¹³Stieglitz, 214, 217.

¹¹⁴Stieglitz, 180-183.

application', the focus of study would be science and technology from the West, also increasingly on capitalism for China to 'make use' of market mechanisms and advanced managerial and technological skills from the capitalist world. Economic expansion would become the prevailing aim, inviting foreign direct investments, and enacting little or no environmental controls as market socialism with Chinese characteristics would prove to be a road to capitalism.¹¹⁵

As a society that has taken great leaps forward around the world, one can look at China in their efforts decades ago to modernize. The Communist Party of China and government constantly said there was no interest, yet, what happened for many of those decades China did Americanize. There was a huge opportunity to use technology at a time as most individuals relied on foot or bicycle to go from an agrarian society into a mass transit society, instead, a million cars a year were added to the streets of Beijing. Today, the streets are congested, gridlocked to the point where pollution is choking their cities and, government's concern about civil unrest, parents angry about the fact that children are dying from asthma.¹¹⁶

Prior to decades of economic expansion from 1985 to 2015, China was a poor, low-emission country, however, the successive building of coal-fired electricity plants would usher in significant growth and increases in GHG emissions. In the developing nations of capital cities like Beijing, Delhi, Jakarta, and Mexico City, the political leaders' concerns about the impacts of urban air pollution with the choking smog caused in large part by coal-fired power plants and fuel-burning vehicles threatens the health of urban elites, their fellow citizens and their own families are starting to pursue energy transformation. China would anticipate the climate change agenda for rich countries like the United States to impose costs on its own industry and to protect industry from its competitors through tariffs and trade sanctions. With setting strong policies to cut coal subsidies, levy modest environmental charges, to pursuing a renewal in electricity mandate since 1997, China now leads the world in generating electricity from wind and solar and in the manufacturing and consuming of electric cars. Although in a short

¹¹⁵Robert Weil, "Yuanmingyuan Revisited: The Confrontation of China and the West," *Socialism and Democracy*, vol. 27, no. 1, Mar. 2013: 109-110.

¹¹⁶Hansen, *Ibid.*

twenty-year span without a global GHG treaty, China would become the single biggest cause of rapid rising global emissions.¹¹⁷

Market globalism reflects the political actions of those modern states and the mutual efforts of those states found captured by liberal interests. In developing free markets, the essence of neoliberalism is about business, financial operations and the marketing of liberalism itself. The power of the state apparatus comes at a cost of bowing to empire and with the rise of imperial globalism, an 'invisible hand' of the market must depend on the state for its survival. During much of the 1990s, market-globalism would rely on the old-nation state forces to withstand challenges would result in the dramatic discovery of what was cloaked behind the ideological veil of the 'self-regulating market, American Empire'.¹¹⁸

2.1. Empires, Trade, and Treaties

The crux of foreign investments is development, and the chief concern is the role of governments, including the American government, in holding nations to unfair agreements in developing countries such as Indonesia, Pakistan and often signed by corrupt governments in those countries. This rings true particularly for investments in mining, oil, and other natural resources, where foreigners have an interest to secure concessions at low prices and efforts of governments to appropriate income (economic rents). The income from mining concessions can be pivotal for development and the transformation of society with a comprehensive plan to include not only resources and capital, but also improving the lives of the poor, enabling everyone a chance at success to accessing healthcare and education. Foreign direct investment does invite a critical lens for how it is managed aside from capital or even entrepreneurship, but also access to markets and new technology for countries like Singapore, China, Malaysia with savings to draw on.¹¹⁹

Today's enclave of the twenty-first century plutocrats arrives on the international scene signalling their status at the World Economic Forum's annual meeting in Davos,

¹¹⁷Mark Kenneth Jaccard. *The Citizen's Guide to Climate Success: Overcoming Myths That Hinder Progress*, (Cambridge University Press, 2020), 23-24, 68-71.

¹¹⁸Steger, *Globalisms*, 164.

¹¹⁹Stieglitz, 71-73, 241-242, 252.

Switzerland. These super-elites are driven by economic interests to think global, and for some a philanthropic capitalist approach to doing good.¹²⁰ Reflecting on a phase of internationalization from 1860 to 1914, the unparalleled technological innovations of the transportation and communication networks would spur the rapid growth of trade and a vast flow of capital. Great Britain, the world's superpower, spread its political system and cultural values across the globe in a sustained effort to engineer a global market under the British Empire, which unleashed a severe backlash culminating in the outbreak of World War I.¹²¹

Orchestrated by the United States, the major economic powers of the West reversed protectionist policies of the interwar period (1918-1939) by committing to the expansion of international trade. The gradual emergence of a new postwar world economy after the 1944 Bretton Woods Conference established the institutional foundations of three international economic organizations: International Monetary Fund, World Bank and World Trade Organization. This system of prescribed limits gave nations free reign to control their borders, economic budgets and to implement social welfare policies and thus, would establish three decades of the 'golden age of controlled capitalism'.¹²²

The Washington Consensus policies would bring about macro-instability and an insensitivity to the broader social context for developing countries. The restrictive conditions would show that whenever information is imperfect and markets incomplete, which is always, and especially in developing countries, then the invisible hand works most imperfectly. Not all the impacts of the Washington Consensus policies for the poor could have been foreseen, but it's clear it was not appropriate. Trade liberalization combined with high interest rates is a path towards job loss and unemployment at the expense of the poor. Financial market liberalization without an appropriate regulatory framework for economic stability may well lead to higher, not lower interest rates, and creates a vicious cycle for poor farmers to buy the seeds and fertilizers to raise them above subsistence. Privatization not kept in check by competition policies and government oversight to ensure monopoly powers are not abused, can lead to higher, not lower, prices for consumers. Fiscal austerity, pursued blindly, in the wrong

¹²⁰Freeland, 67-68, 74-75.

¹²¹Steger, *Globalisms*, 29, 165.

¹²²Steger, *Globalisms*, *ibid*.

circumstances can lead to high unemployment and a shredding of the social contract leading to civic unrest.¹²³

A long history of unfair contracts exists, which Western Governments have used their economic power and military might to enforce, and to open markets. In the nineteenth century the Western powers under the auspices of Empire building flourished through protectionist policies and pushed unfair trade treaties. The most outrageous, followed by the Opium Wars, was when Britain and France, and with Russia and the United States forced China into the Treaty of Tientsin in 1858 to make trade and territorial concessions, not only to ensure low prices for the goods exported to the West, but access to its markets for millions in China who would become addicted in a global 'balance of trade'.¹²⁴

In the early and mid-Qing period, before the outbreak of the Opium Wars, China was more open as the Kangxi emperor permitted maritime trade through coastal customs offices from 1683 until the Qianlong emperor established the Canton System in 1757. The Canton System centrally controlled by Beijing may have been directed mainly at foreign traders, but policy would restrict all trade to one location and directed more to eradicate illegal and private imports within an existing network of business elites and families who controlled commerce in south China. From a global perspective, China's connection with Macao, where the western communities of traders, diplomats, missionaries were hosted, to southeast Asia with Manila as a Spanish entrepôt in the Pacific connecting the south China trade with the Americas, and the interior provinces of China, would make Canton the axis of global trade networks between the European empires and the Middle Kingdom.¹²⁵

The flourishing economic landscape nurtured by peace with the last feudatory rebellions quelled in 1681 to the coastal frontier secured with Taiwan added to China proper in 1683 would see the greatest period of demographic and commercial expansion. The bustling eighteenth-century of commerce had roots long before the Qing conquest with an expanded money supply, in both new world silver and copper components of China's bi-metallic currency would nourish an expanding domestic trade

¹²³Stieglitz, 73-74, 84.

¹²⁴Stieglitz, 61-62.

¹²⁵Manual Perez-Garcia and Lei Jin, "The economic "micro-cosmos" of Canton as a global entrepôt: Overseas trade, consumption and the Canton System from Kangxi to Qianlong eras (1683-1795), *Atlantic Studies*, 2021: 1-4.

of rural networks that overflowed the boundaries of China's major economic regions. Phillip A. Kuhn, an American historian of China, notes a society in the midst of an economic boom, which "[e]ighteenth century Chinese, whose genius for commerce and enterprise sustained by firm and effective government, was admired by the world." For three quarters of a millennium as China's most highly developed region, the area known as Jiangnan (south of the river) in east-central China formed the prosperous core of what is now called the lower Yangtze macro-region specializing in textiles with silk being the leading export.¹²⁶

This expansive scene, already visible in the late sixteenth century, would be redrawn on an even grander scale as silver and copper flowed into China for her manufactured silk, tea, porcelains, and other goods desired by the outer world. As exchange became more efficient, farmers could specialize in cash crops, and handicraft industries grew rapidly with close connections between villages and market towns forming the fabric of late imperial society. The mild and persistent rise in prices accompanying the influx of silver was generally good for economic growth. Farmers could sell their grain more profitably and pay their taxes more easily, investors flourished in the long period of inflation, and government with the liquidity of cash would carry out major tax reforms, such is our composite view of a prosperous, bustling age.¹²⁷

Copper and silver were used for regular daily purchases, for larger transactions, the increased use of silver ingots would evolve in the merchant community early in the fifteenth century, especially in commercial regions of Guangdong (Canton) and the Lower Yangtze. The gradual conversion of Imperial China to a 'silver zone' was initiated by merchants in south-east China, the centre of foreign trade, when the fiduciary money system collapsed. China had over a quarter of the world's population late in the Ming period and it was the centre of the largest tribute/trade system in the world with local, regional taxes and imperial tributes to be paid in silver. When such a large percentage of the world economy is committed to the purchase of a specific commodity that is high in

¹²⁶Philip A. Kuhn, "The Prosperous Age," *Soulstealers: The Chinese Sorcery Scare of 1768*, (Harvard University Press, 1990) 30-33.

¹²⁷Kuhn, 32-33.

value and transportable among continents, the impact on that industry is bound to be global. For China, the early-modern silver industry was no exception.¹²⁸

Extraordinary rich silver mines were discovered from Peru and Mexico in the West and to Japan in the East with supplies controlled by the Spanish Empire and the Tokugawa Shogunate. Europeans would profit as middlemen in the silver trade between Spanish America and China as New World silver crossed the Atlantic and passed through Europe via the Baltic, the Levant, and the Cape trade routes onto a Chinese port of destination. The Pacific Ocean furnished an alternative, direct trade route from America to China as silver-laden Manila Galleons sailed out of Acapulco to the Philippines where the high-value cargo was transferred to junks for shipment to China.¹²⁹ The early modern silver trade around the globe represented the birth of the 'world economy', integrating all continents for the first time in the sixteenth century. This trade would play an integral role in worldwide price inflation's form, Spain's rise and fall, Japan's emergence as an independent political power, the birth of the Pacific Rim economy and domestic, inter-Asian influences to explain structural changes inside of Ming/Qing China.¹³⁰

China's history of feudal rule for thousands of years would form a relatively independent and complete economic system, a micro-cosmos of merchants and officials who would create a 'system within the system' and in practice by unofficial activities foster long-term foreign trade and capital accumulation. The introduction of European goods to Macao-Canton would influence merchants to introduce European goods to China and to exchange American silver for Chinese goods destined for the West. Qianlong encouraged local officials to purchase foreign goods and luxury items, which generated a high profit for state revenues. A self-sufficient economy was the main, official objective of the Qing rulers with their conservative and rigid attitude to maintain a stable political regime and to avoid social unrest or uprisings.¹³¹

The Qing rulers, specifically the Qianlong emperor, were also aware to import food and raw materials from foreign countries that would avoid environmental

¹²⁸Dennis O. Flynn and Arturo Giraldez, "Arbitrage, China and World Trade in the Early Modern Period," *Journal of the Economic and Social History of the Orient*, vol. 38, 1995: 430.

¹²⁹Flynn and Giraldez, 429.

¹³⁰Flynn and Giraldez, 438-440.

¹³¹Perez-Garcia and Lei, 1, 13.

degradation and preserve economic structures.¹³² The Qianlong emperor – akin to his grandfather Kangxi who was fascinated with western culture, science and technology – had a taste for exotic goods, and often asked local officials to procure luxury items and high-quality crafts such as wool, glass, handicrafts, mirrors, and clocks as an avid collector of clocks, which he held in one of the pavilions at the Imperial Court. While Qianlong took great pleasure in acquiring rare and luxury foreign goods, he would ban their consumption for the rest of the country.¹³³

These western goods were extremely sought after, especially by the Imperial family, who were the main consumers of western luxury goods, and among the elites to the Canton officials. The thriving business of southern local officials, from Canton, also shaped Qianlong's taste for luxury goods. There was a 'trickle up' as well as a 'trickle down' effect for the consumption of luxury goods, which would trigger corruption and misappropriation of tax funds. By extension, we can gather it was not only officials and the gentry, but the social elite sought to emulate the conspicuous consumption of new and exotic goods, which had become status symbols of wealth and social distinction and can be deduced as symbols of power.¹³⁴

Suzhou, an ornament of China's most elegant urban culture, reflected China's richest province in 1768 during the thirty-third year of the reign of Qianlong.¹³⁵ Social values would gradually change with economic growth in the Jiangnan region as Suzhou typified the use of capital where the wealthy largely poured their excess into land and culture. Qianlong would symbolically place himself at the centre of high and popular culture, in the Chinese sector of the Garden of Eternal Spring the gardens of Suzhou and Hangzhou were glorified as the essence of Chinese culture, the garden represented his cosmos.¹³⁶ The emperor trained in painting and calligraphy would absorb the literati ideals and develop a deep interest in connoisseurship. Yet, commercial capital would

¹³²Perez-Garcia and Lei, 13.

¹³³Perez-Garcia and Lei, 11-12.

¹³⁴Perez-Garcia and Lei, 11-14.

¹³⁵Kuhn, 22.

¹³⁶Victoria M. Siu, *Gardens of a Chinese Emperor: Imperial Creations of the Qianlong Era, 1736-1796*, (Lehigh University Press, 2013) 172j-172k.

never be permitted to create an independent bourgeoisie with more influential tastes than the gentry-imperial court culture and its bureaucracy.¹³⁷

Regional development was uneven in the commercialized core with a few salable exports compared to the peripheral, hinterlands of agricultural production in a challenging ecological environment. All over China, people were migrating, moving upward as well as outward, forested hills became flourishing sweet potato and maize farms until the soil eroded and be barely cultivable. The expansion of cultivated land area during the eighteenth century cannot be measured, but as a nation was thought to have kept pace with population growth until around 1800. China's population would roughly double during the eighteenth century, from around 150 million in 1700 to around 313 million in 1794. All of this can be seen as a human triumph of will and work and an ecological disaster, as China's mountain soil would gradually wash into her rivers.¹³⁸ China did not need anything from other countries as Qianlong would state to Lord Macartney, but it would import grain and American crops to mitigate food shortages in the densely populated south-eastern coastal areas with little to no cultivable land.¹³⁹

Interacting with the West was not without its challenges and consequences as evidenced with the 1793 diplomatic mission of the British ambassador, George Macartney (1737-1806). It was marked with tensions stemming from the traditional posture of the Chinese Empire as self-sufficient and established court etiquette of receiving ambassadors as supplicants. The interaction would lull the Chinese imperial government to believe it had averted foreign demands for new relations, and for the British to devise an offering in exchange for coveted textiles and porcelains. By 1842, Qing authorities would sue for peace, which settled with the Treaty of Nanking. China agreed to pay an indemnity to Britain and open five ports to trade, ceding Hong Kong to the British crown, granting Britain most favoured nation status; and giving British subjects extraterritorial privileges in treaty ports. Similarly, the United States and France would conclude their treaties in 1844.¹⁴⁰

¹³⁷Siu, *Gardens of a Chinese Emperor*, 37-38.

¹³⁸Kuhn, 41-42.

¹³⁹Perez-Garcia and Lei, 10.

¹⁴⁰John Vollmer and Jacqueline Simcox, "Universal Rule," *Emblems of Empire: Selections from the Mactaggart Art Collection*, (Edmonton: University of Alberta Press, 2009) 233.

The Western nations would continue to push on interests, incidents over issues of sovereignty, national pride, and interpretations of the Treaty of Nanking to pave the way for a second Opium War, which erupted in 1856 with British and French forces attacking Canton to culminate in the Treaty of Tientsin. Hostilities would emerge again in 1859 when the Qing government refused to site a British embassy in Beijing and arrested British envoys. In October 1860, the combined British and French forces under command of James Bruce, the Eighth Earl of Elgin (1811-1863), would march on the capital and halted at Yuanming Yuan, north of Beijing. As an assault on the prestige of imperial government for the murder of two British envoys, Elgin ordered the palaces and gardens burned and the palace treasures were looted in retaliation. When the war ended, the opium trade was legalized and further privileges were granted to the western nations that would also lead to rebellions further weakening the Qing empire.¹⁴¹

Yuanming Yuan would become a symbol of China's defeat and humiliation at the hands of foreign powers in the 19th century. Although there is 'no there, there', the last imperial dynasty's 'paradise on earth' is everywhere in the Chinese national consciousness and a focal point of modern Chinese nationalism. Its very power lies in its physical invisibility with what remains are the romantic ruins of European palaces, architectural forms of Italian Baroque, French Rococo that once formed one sector of the entire garden.¹⁴²

2.2. Imperial Garden Palaces and Scenic Illusions

The Garden of Perfect Brightness (Yuanming Yuan) was the most elaborate imperial gardens in the eighteenth century. Today, the gardens still lie in ruins with some stone and marble elements, reminiscent of the intimate connection with architectural design and offers a key to appreciate the importance both as a place and idea in the long history of garden making.¹⁴³ From the ancient gardens of the Egyptian nobility, the walled gardens of Persian settlements in Mesopotamia, and the merchant gardens in medieval Chinese cities, it shows an affinity for early urban peoples and of the great lengths to be close with nature. The belief of connecting with nature was good or

¹⁴¹Vollmer and Simcox, 233, 242.

¹⁴²Lillian M. Li, "The Garden of Perfect Brightness I," *The Yuanmingyuan as Imperial Paradise (1700-1860)*, (MIT Visualizing Culture, 2012) 1.1-1.2.

¹⁴³Siu, *Gardens of a Chinese Emperor*, xv, 172a.

beneficial for people is an age-old, widespread notion and is an early hypothesis of biophilia for a love of nature.¹⁴⁴ The Chinese love of nature was so strong, as revealed in Chinese landscape painting and gardens to represent a philosophy, or belief, on par with Confucianism, Taoism, and Buddhism and a garden was a literal religious form.¹⁴⁵

Garden design was a time-honoured tradition to transform spaces into spiritual places, and to harmoniously celebrate nature. As it's generally known, the scholars of the Northern Song period (960-1126) set many of the aesthetic standards for Chinese art. Landscapes (shan-shui) of mountain-water views would emerge as the most revered genre of Chinese painting and gardens, a three-dimensional form of those landscape paintings.¹⁴⁶ Basic design elements, such as extensive areas of water (shui) in streams and ponds and constructed earthen mounds or the use of boulders to form artificial mountains (shan); and simple, single-storied buildings in the garden area were to convey a sense of spaciousness, orderly and spectacular views of the eleventh century literati's natural habitat. Private gardens built on artificial landscapes would satisfy the same aesthetic for viewing scenic representations and of what a landscape painting served.¹⁴⁷

Gardens and landscape representations are closely connected in Chinese culture and by the Ming dynasty (1368-1644), garden representation would develop into its own subgenre of landscape painting.¹⁴⁸ Gardens would play an important role in the lives of the Chinese emperors, and the Manchu emperors of the Qing dynasty (1644-1911) were no exception. The Garden of Perfect Brightness in the western outskirts of the Qing capital, Beijing, was granted by the great Kangxi emperor (r. 1661-1722), expanded by his son Yongzheng emperor (r. 1722-1736) and brought to its greatest glory by his grandson Qianlong emperor (r.1736-1796).¹⁴⁹

Despite its proximity to the ceremonial Forbidden City in Beijing, the Qing rulers spent the majority of each year at Yuanming Yuan. Arguably, both Yuanming Yuan and

¹⁴⁴Roger S. Ulrich, "Biophilia, Biophobia, and Natural Landscapes," Stephen R. Kellert, and Edward O. Wilson, editors, *The Biophilia Hypothesis*, (Island Press, 1993) 73.

¹⁴⁵Maggie Keswick, et al, *The Chinese Garden: History, Art, and Architecture*, Rev. / by Alison Hardie, (Harvard University Press, 2003) 214.

¹⁴⁶Siu, *Gardens of a Chinese Emperor*, xvi-xvii.

¹⁴⁷Robert G. Harrist, "Art and Identity in the Northern Song Dynasty: Evidence from Gardens," *In Arts of the Song and Yuan*, edited by Maxwell K. Hearn and Judith G. Smith, (New York: The Metropolitan Museum of Art, 1996) 148.

¹⁴⁸Kristina Kleutghen, *Imperial Illusions: Crossing Pictorial Boundaries in the Qing Palaces*, (Seattle: University of Washington Press, 2015) 202.

¹⁴⁹Siu, *Gardens of a Chinese Emperor*, xv.

its predecessor, the Imperial Summer Villa in Chengde built by Kangxi at Rehe, marks a new Manchu architectural typology, that of 'imperial garden palaces'.¹⁵⁰ In plan, the new garden palaces were designed as microcosms of the empire and cosmos, focusing on the emperor surrounded by scenic spots mirrored around the nation and beyond its borders. More than just a refuge from the summer heat and urban crowding, the Yuanming Yuan, with its idyllic lakes and hills, exemplified a Confucian concept of a wise ruler in the 'Yong ye' section of the Analects: 'The wise enjoy water, the virtuous enjoy mountains.'¹⁵¹

The garden would become the central focus of architectural design attracting the Qing emperors as its own walled setting. It's this new concept that captures the self-contained worlds embodying diverse peoples, geographical sites, as well as sites of ritual, religious, and political power.¹⁵² In the Qianlong period, aside from the continued expansion of the garden-palace, numerous scenic spots (jing) were built in imitation of famous locations and scenery that the emperor had admired in the south and elsewhere on tours. Granted architectural copying had much earlier precedents, though not to such a great extent or so explicitly the sites from southern gardens as well as famous landscapes such as all ten scenic spots of the famed (Ming) West Lake in Hangzhou. In symbolizing a vast realm, the Qianlong emperor, as the imperial planner transporting sites from across the country, along with more generic scenes from everyday life, such as working farmlands and a Suzhou market street, would recreate a world inside the garden-palace walls.¹⁵³

China's greatest imperial garden complex would extend China's influence and set in motion a picturesque revolution and its Chinese roots.¹⁵⁴ In an intercultural exchange, one of the best contemporary descriptions is that of the imperial court painter French Jesuit artist Jean-Denis Attiret (1702-1768, arrived China 1737), who emphasized the carefully planned asymmetry of the Yuanming Yuan gardens:

¹⁵⁰Liu, "The Yuanming Yuan Summer Palace," Splendors of China's Forbidden City: The Glorious Reign of Emperor Qianlong, (London: Merrell Publishers, 2004) 35.

¹⁵¹Cary Y. Liu, The Yuanming Yuan Summer Palace, Ibid.

¹⁵²Cary Y. Liu, "Architects and Builders of the Qing Dynasty: Yuanming Yuan Imperial Garden-Palace," The University of Hong Kong Museum Journal, September 2002: 47.

¹⁵³Liu, Architects and Builders of the Qing Dynasty, 43.

¹⁵⁴Greg M. Thomas, "Yuanming Yuan/Versailles: Intercultural Interactions between Chinese and European Palace Cultures," Art History vol. 32, no 1, February 1999: 129.

In Europe, uniformity and symmetry are desired everywhere. We wish that there should be nothing off, nothing misplaced, that one portion should correspond exactly with the part facing it. In China they also love this symmetry ... But in the [Yuanming Yuan] pleasantries there reigns everywhere a graceful disorder, an anti-symmetry is desired almost everywhere. Everything is based on this principle. It is a natural, rustic countryside they wish represented, a solitude, not well-ordered place conforming to all the rules of symmetry and harmony.¹⁵⁵

Written in 1743, Attiret's description of actual Chinese gardens would remain the most detailed account of the Chinese emperor's primary garden palace complex for the next five decades. It was pivotal in making Chinese court culture known to Europeans and would greatly influence the development of the free-flowing English landscape garden, named by the French the *jardin anglais-chinois*, and the entire flowering of Chinoiserie.¹⁵⁶ The 'Anglo-Chinese' garden, combined the landscape arts of England to transform the parklands of the rich from Naples to the gulf of Sweden. The phenomenon of Chinoiserie became ubiquitous and would affect every area of the decorative arts, and during the eighteenth-century rococo was a key element in furnishing and design.¹⁵⁷

The European taste for Chinese goods grew organically in Europe as traders brought them back, and the tipping point in Chinoiserie's popularity was when King Louis XIV (r. 1643-1715) of France built the Trianon de Porcelaine – a five pavilion structure adorned with blue-and-white tilework – on the pleasure grounds of the Palace of Versailles in 1671.¹⁵⁸ Evoking the cultural memory of the Trianon de Porcelaine, the Petit Trianon was a gift by Louis XVI (r. 1774-1782) to Queen Marie-Antoinette who would commission an expansive 'Anglo-Chinese Garden', installed in 1774 to 1782. Whether inspired in part by the Prince de Condé's Château de Chantilly installation of a hamlet and an Anglo-Chinese garden in 1774 or coincidentally inspired from Yuanming Yuan, it was likely she knew from Attiret's text of Qianlong maintaining a Chinese village where eunuchs role-played merchants, craftsmen and even pickpockets for the emperor's amusement and the rustic simplicity of country life. Marie Antoinette's echoing of the hamlet shows the systemic mirroring of Chinese and European aristocratic court

¹⁵⁵Chuimei Ho and Bennett Bronson, *Splendors of China's Forbidden City: The Glorious Reign of Emperor Qianlong*, (London: Merrell Publishers, 2004) 267.

¹⁵⁶Thomas, 125-128.

¹⁵⁷Dawn Jacobson, *Chinoiserie*, 1st pbk. ed, (Phaidon, 1993) 7.

¹⁵⁸Thomas, 131.

societies, along with the art systems used to maintain them making China's foreign aesthetic particularly attractive to English and French aristocracy and royalty.¹⁵⁹

In the same decades of the later eighteenth century, the Qianlong emperor would envision an equivalent form of *Européenerie*, one mirroring Europe in converse drawing on "elements of fantasy, of garden and scenic design, of cultural myth and imaginative practice."¹⁶⁰ Qianlong had the same sense for aesthetic play of contrast and on a far grander scale than anything in England or France. In 1747, a set of palace buildings were designed as a tableaux series of French, Italian and Austrian models complete with exterior stonework on wooden frames and elaborate, animated fountains unprecedented in Chinese gardens. Upon this sector's completion in 1783, the complex would include ancillary buildings, a large fountain complex inspired by Versailles' Arc de Triomphe, and imitated Versailles with an aviary and a maze.¹⁶¹

Qianlong's interest in European-style fountains and buildings after viewing images of European palaces, he would call upon an extraordinary group of Jesuit advisors, whose expertise as artists and scientists he greatly valued. Michel Benoit (1715-1774, arrived China 1744), trained in mathematics and hydraulics, designed the fountains—Qianlong's first ambition. Court painter Giuseppe Castiglione (1688-1766, arrived China 1715), who undertook many imperial portraits and landscapes, was responsible for the design of the palaces themselves. And Jean-Denis Attiret advised on many aspects of the palaces, including the interiors and the gardens built to complement the fountains. All the plans for the European palaces, gardens and the Chinese sectors of the Yuanming Yuan were executed by the chief architect to the imperial family known as Yangshi Lei, roughly Architects Lei, and his descendants would continue to serve the successive emperors. Chinese elements introduced by the architect or the Jesuits or suggested by the emperor included Chinese-style hipped roofs with tiles, dragons and other symbolic animal designs.¹⁶²

The European Palaces are part of the gardens collectively known as the Garden of Perfect Brightness, in fact, they were part of the Eternal Spring Garden. Often

¹⁵⁹Thomas, 132.

¹⁶⁰Thomas, 120, 133.

¹⁶¹Thomas, 133-134.

¹⁶²Lillian M. Li, "The Garden of Perfect Brightness II," *The European Palaces and the Pavilions of the Yuanmingyuan*, (MIT Visualizing Culture, 2012) 1.1-1.3.

mistakenly referred to in English as the 'Old Summer Palace', the Chinese name of the site, Xi Yang Lou, translates as 'Western Ocean multi-storied buildings.' These buildings served as exhibition spaces and collection holdings for many European and Sino-European treasures: glass windows, grand chandeliers, clocks, watches, automata, sing-songs, scientific instruments, furniture, turned ivory spheres, curios, Beauvais tapestries, European-style paintings, and scenic illusions.¹⁶³ The massive displays of priceless fine and decorative art would consolidate imperial power for the emperor as chief patron and the keeper of national culture.¹⁶⁴

Qianlong's view of Western architecture was similar as Europeans to Chinese architecture seen as an "exotic accent of variety, distorted and converted from meaningful symbols." As Attiret mentions, the emperor was mystified by European's fondness for multi-storey houses, and he quotes him as saying that 'Europe must be very small and very wretched country, since there is not enough land for cities to spread out, and people there have to live in the air.' The Western palaces were intended purely for pleasure, as a Européeniste showcase and theme park.¹⁶⁵ In Qianlong's time, the European pavilions served its function for a theatrical experience of the West and placed within an expanding global order of the Qing dynasty.¹⁶⁶

At the zenith of the imperial tradition, it's fitting this garden, the Yuanming Yuan made such an impact on Europe as an imperial retreat for sage rulers and would equal the most lavish in history.¹⁶⁷ Yuanming Yuan was at the center in the diplomatic missions of the 1790s, influential in the arts and sciences, and in religion, politics and technology. The Western palaces act as a gateway of cultural ideas, transmitting beliefs privately and publicly about what another culture was like, and how it represents culture.¹⁶⁸ The European and Chinese traditions of a hybrid visual culture is emblematic of a complex case of intercultural interactions.

China would experiment with European techniques in the arts and increasingly, it would come to represent the global perspective of its citizens. Scenic illusions would

¹⁶³Kleutghen, 181.

¹⁶⁴Thomas, 120.

¹⁶⁵Thomas, 134.

¹⁶⁶Li, The Garden of Perfect Brightness II, 1.5, 1.8.

¹⁶⁷Keswick, et al, 72.

¹⁶⁸Thomas, 116-117.

integrate ideas in more captivating ways through a cultural exchange. At an imperial level from the Ming to Qing, if a 'fundamental condition of visual modernity' is a shift in the existing visual or representational order,' then it reveals a major cognitive shift in art's function and significance. Scenic works are an indication of High Qing court art in response to sustained foreign contact and within a general aesthetics of illusionism.¹⁶⁹

2.3. The Garden of Hybridity and Visual Modernity

Western methods of graphic representation were known in China for more than a century, and both foreign and local artists experimented with vanishing-point perspective through converging lines and rendering three-dimensional forms through chiaroscuro. Qianlong's impulse to direct the court artists to collaborate on single works would ensure these techniques were adopted on a larger scale, the near photographic accuracy of the Western style made it more valuable as a record, and the use of traditional Chinese conventions for representing buildings, birds, plants and landscapes attractive to his eyes. The contemporary landscape would shift with a fusion of European and Chinese techniques in the Qianlong period.¹⁷⁰

An illusion of creating depth was a graphic innovation, which marks a major evolutionary step in the history of Chinese garden representations. The combination of perspective and direct facing scenes, together with the technique in copperplate engraving was an entirely new imagining of the physical and visual experience of a garden.¹⁷¹ In the eighteenth century, a viewer holding the unity of gardens and garden representations on the one hand, the unity of mind and scene on the other, meant that looking at a pictured garden could be experienced as an early modern virtual reality tour through real space.¹⁷²

A series of Chinese copperplate engravings of twenty sequential views of the European Palaces is visual evidence for this rare view, which exploits linear perspective together with scenic illusions to recreate the physical and psychological experience of visiting the site.¹⁷³ As long as the viewer looks at the print, it occupies that space both of

¹⁶⁹Kleutghen, 274.

¹⁷⁰Ho and Bronson, 222.

¹⁷¹Kleutghen, 206.

¹⁷²Kleutghen, 203.

¹⁷³Kleutghen, 179-180.

illusion and reality, an etching of Europe as a place resting in-between what was seen and reconciling what the view really was with a pictorial technology claiming to replicate real vision. A monochromatic image reminds the viewer-visitor of a two-dimensional artwork is a three-dimensional structure in permeable space.¹⁷⁴ The views of the Western palaces are not just of art and architecture, rather an entire mode of European visual awareness with Qianlong's commission to reproduce what were the first such prints manufactured in China.¹⁷⁵

In the same year as the European sector was completed, the copperplate engravings of the European pavilions by Chinese Imperial Academy painter Yi Lantai (1749-86), like the design of the complex itself, are the products of aesthetic hybridity.¹⁷⁶ The emperor may have ordered the Observatory of Distant Oceans (see figure 1, Scene 14) erected to the Great Fountains (see figure 2, Scene 15) to the north after the death of Castiglione, not only to house the Beauvais tapestries, but in keeping with the Chinese notion of the northern direction of privacy¹⁷⁷ and at times a resting place for Qianlong.¹⁷⁸ The prints were privately held in the palaces, and 200 limited sets would be gifted to imperial relatives, high officials, and other guests.¹⁷⁹

¹⁷⁴Kleutghen, 216.

¹⁷⁵Thomas, 135.

¹⁷⁶Li, *The Garden of Perfect Brightness II*, 2.1.

¹⁷⁷Siu, *Gardens of a Chinese Emperor*, 172f-172g.

¹⁷⁸ Li, *The Garden of Perfect Brightness II*, 2.17.

¹⁷⁹ Li, *The Garden of Perfect Brightness II*, 2.1.



Figure 1. Scene 14, Observatory of Distant Oceans Yuanyingyuan 遠瀛, front view. Yi Lantai (1749-86)

Source: Li, *The Garden of Perfect Brightness II*, 2-17.



Figure 2. Scene 15, Great Fountain Dashuifa 大 wat 法, front view. Yi Lantai (1749-86)

Source: Li, *The Garden of Perfect Brightness II*, 2-18.

Castiglione's originality in designing the varied water scenes is evident in the pictorial area of the Great Fountains, which draws the viewer into a visual shift from a west-east direction to a north-south axis (see figure 3, Schematic of Eternal Spring Garden). The emperor enjoyed this entire water scene from a marble throne area placed due south. The main marble fountain at its center the head of a lion spouting water from an elevated height, but just to its south the largest part of the fountain on ground level depicts a hunting scene, a subject close to Qianlong emperor's heart, considering the many paintings of him engaged in that activity.¹⁸⁰ A Qing emperor had himself portrayed on the hunt to remind his Manchu subjects he had not forgotten his origins on the grasslands of Manchuria, unpolluted by the sapping effects of sedentary life.¹⁸¹

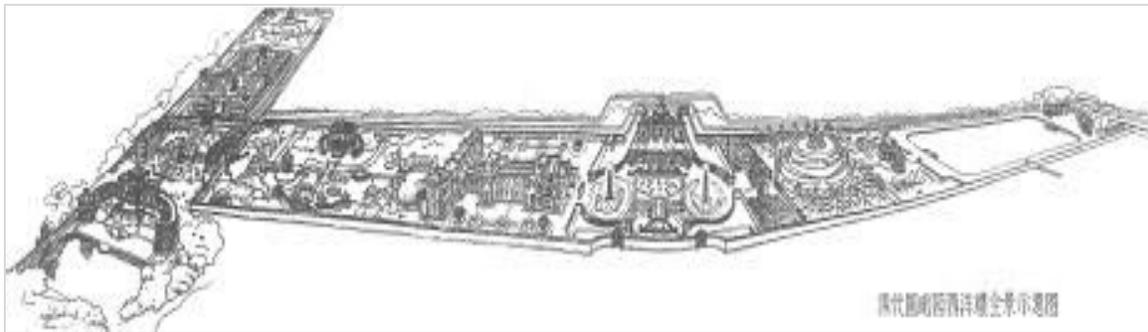


Figure 3. Schematic of Xi Yang Lou in Chang Chen Yuan

Source: Siu, *China and Europe Intertwined*, 378.

Imagine the emperor casting a bird's eye view over an illusionary world of earthly delights from his marble perch, a resplendent fountain with its lion head. Lions, admired for strength and courage, and associated with military and hunting prowess, figure prominently in Buddhist legend as guardians and mounts of deities, Manjusri, the Bodhisattva of Wisdom is seated on a white lion.¹⁸² The Qing emperors believed in managing public representations whether in person or through images, as compared to the Ming emperors who remained hidden behind the walls of the Forbidden City. For the Qing emperors to appear to Europeans as pantocrats, universal monarchs, on par with European kings, emperor Qianlong's European-style garden shown in the prints would make visible this claim.¹⁸³

¹⁸⁰Victoria M. Siu, "China and Europe Intertwined: A New View of the European Sector of the Chang Chun Yuan," *Studies in the History of Gardens & Designed Landscapes*, vol. 19, no. 3-4, 1999: 384.

¹⁸¹Timothy Brook, et al, *The Forbidden City: inside the court of China's emperors = Zi yuan xie zhen*, (2014) 33.

¹⁸²Patricia Bjaaland Welch, *Chinese Art: A Guide to Motifs and Visual Imagery*, 1st. ed, (Tuttle Pub, 2008), 135-136, 188.

¹⁸³Brook, et al, 26-27.

The European sector would prove to be a more challenging tour de force to satisfy the imperial taste for hybridity. One must consider the intercultural exchange of the artist and the patron, emperor Qianlong was a Manchu with Sino-Tibetan tastes, as attested by many objects of his period and his appreciation of European perspective. Qianlong would commission Castiglione to teach the techniques to some colleagues as Yi Lantai in the Imperial Painting Academy. As an accomplished European artist and a Jesuit at his core, and trained extensively in Chinese painting styles at the insistence of emperors Kangxi and Qianlong, Castiglione largely succeeded in blending East with West in the European sector, and clearly adopted the Chinese aesthetics and garden principles to a high degree.¹⁸⁴

The Jesuits would maintain their influence at the Chinese imperial court through their scientific knowledge, and skills as painters, musicians, architects, hydraulic engineers, and hydrographers. Through the good will developed by the Jesuit Fathers, Louis XIV was a precursor in navigating 'cultural diplomacy,' in reconciling political and economic interests with cultural and scientific exchange. Exoticism would invite curiosity and a veritable knowledge of China at French court and establish unique diplomatic relations that would be the envy of France's European neighbours.¹⁸⁵

The Siamese ambassadors who had lavished many gifts on Louis XIV invariably influenced the royal taste for new colours, materials and unfamiliar forms. During the reign of Louis XV and more during that of Louis XVI, the exchanges with China increased, and the demand for 'things Chinese' gradually grew. The king's successors were equally avid for these Chinese *objects d'art*, which had a significant influence on French art and artistry. As protectors of the arts, the kings of France only promoted French artistry in their official apartments, but in their private apartments could pursue their personal inclinations, and decorations 'in the Chinese manner' were commonplace. This exceptional revelation of 'China at Versailles' explains why these decorations were overlooked for so many years.¹⁸⁶

¹⁸⁴Siu, Gardens of a Chinese Emperor, 172h-172i.

¹⁸⁵Établissement public du château, du musée et du domaine national de Versailles, editor, La Chine à Versailles: art et diplomatie au XVIIIe siècle album de l'exposition, [château de Versailles, 27 mai-26 octobre 2014], (Somogy Château de Versailles, 2014) 4, 8.

¹⁸⁶Établissement public du château, 4.

The mutual mirroring of the two palace cultures could only have occurred if the two very different peoples shared similar underlying cultures and values. While this similarity put Yuanming Yuan on par with Versailles, it appears by 1860, Versailles had become devalued as a remnant of France's own decadent past, a past soon to come to a definitive end with the fall of the monarchy in 1870. Chinoiserie and Européenrie serve as a visible, poignant nostalgic marker of a pre-modern royal order, vanishing before the modern economic, political and cultural pressures of the late nineteenth century, would shift to become a sign of aristocratic decadence.¹⁸⁷

An emphasis on symbolism, a rising use of archaic motifs, a strong interest in European designs and techniques, and an aesthetic value of imitation and combining of materials were the trends characterizing Chinese decorative arts in the eighteenth century.¹⁸⁸ China was a net importer of Western silver rather than western goods, although the few truly Western examples of fine and decorative art that arrived in China were destined for the imperial court, and to emphasize it was Chinese artisans and workshops that produced most of the 'Western' objects including the European Palaces. The dramatic innovations reflected in Chinese art that occurred in the eighteenth century was interrupted in the nineteenth century, coinciding with the weakening of imperial China's economic, political, and military strength, as well as with conflicting sentiments about the West and its material goods after the Opium Wars.¹⁸⁹

In reaction to the Industrial Age, works of art and objects of imperial factories and workshops found a resonance and were advocated by tastemakers of the Aesthetic and Arts and Crafts movements. In part, exports of trade goods made specifically for Western tastes were primarily from southern China, but increasingly objects, garments and textiles made for the court or objects inspired by these goods became available. Some imperial objects in the art markets of London or Paris could be traced to the 1860 destruction of Yuanming Yuan. Other objects were purged from imperial storerooms that were no longer required by the imperial household, but unofficially were to generate

¹⁸⁷Thomas, 138.

¹⁸⁸Ho and Bronson, 225.

¹⁸⁹Kleutghen, 182, 277.

funds for the court, whose sources of revenues were disrupted by civil rebellions, trade wars and depleted by the reparations, imposed by its treaties with the West.¹⁹⁰

The eighteenth century would lay the foundation for what would take place toward the middle of the nineteenth century, when the arrival of photography and other new media alongside the increased European presence in treaty ports and major cities meant that Chinese visual culture once again had imported ideas to integrate.¹⁹¹ The garden is a potent symbol of China and one aspect of Chinese culture that has been widely admired in the West over several centuries that has had a significant influence on Western culture. The garden, as a microcosm of nature's plenitude, must pack all experiences within it on an aesthetic level, and this creates a curious kind of space on the part of the garden as a metaphor for a larger part of the universe of life and beauty, and the confrontation of East and West.¹⁹²

In the 1980s, there were two worlds: the Soviet dominated world, and the Western world. There was no exchange between these two realms and when it came to mines and metals, China was similar under early communism in interactions with the West. Cooney would share early in his mining career, on the test of intellectual property:

As China started to open, an executive from INCO, a big nickel mining company then headquartered in Sudbury, Canada and since taken over by a Brazilian company, found himself with a group of senior mining executives from other companies on some of the very first mine tours. The Chinese had built a nickel mine and the mine looked exactly like the mine he had operated, he was astounded, 'they stole it'...the Chinese wanted this expert to help fix this operation.

The Chinese look-alike mine wasn't profitable because some technical information wasn't available in commercial publications.¹⁹³

Hansen would recall a speech given in 1986 at the Asia Pacific Foundation that in the 1970s for the first time in Canadian history, "our value of trade across the Pacific Ocean exceeded our trade across the Atlantic Ocean". "It's part of Canada's economic

¹⁹⁰Vollmer and Simcox, 246.

¹⁹¹Kleutghen, 276-278.

¹⁹²Keswick, et al, 9-10, 213.

¹⁹³Cooney, *Ibid.*

necessity to have an open approach to trade, with the Asia-Pacific region as that's what's been driving the Canadian economy", and Hansen adds:

Yes, there are political issues that speak to our values as a society that likens to the idea of should we trade with a company or country like China that doesn't value human rights in the way that we as a society value human rights... [t]he idea that we should not be doing business with China is growing in terms of public opinion, that's dangerous... the only way we can make our mark internationally as a country in a way that reflects our values as Canadians is to engage. We need to engage in trade. We need to engage in commerce. We need to engage politically.¹⁹⁴

There are certain values that permeate all cultures. What values are coming into our consciousness, and at a sub-conscious level such that Marcuse recalls:

... a statement from a colleague at a symposium that we held many years ago, here in Vancouver, who was from Beijing... [T]here was a huge level of self-censorship, in terms of expression that came out of the Cultural Revolution... [I]t's the way he put it was, 'it's in our cells now' and that kind of repression creates a lasting, dampening of possibility.

Values may be expressed in different ways and at the same time, there are vast differences across cultures that can make collaboration difficult.¹⁹⁵

Gaining access through diplomatic means, Burtynsky bears witness to contemporary China's Industrialization in a new millennial.¹⁹⁶ The Chinese are following our lead and fouling their habitat at an alarming rate is not news and was not Burtynsky's point in travelling there, but an artist following his muse in creating images about the man-made transformations our civilization has imposed upon nature. Images evidence a "wonderland of ruined factories and towns, an artless zone of utilitarian efficiency", and "landscapes purged of nature".¹⁹⁷ It's an echo of recurring cycles reflected in the photographic China series, *Bao Steel #8, Shanghai, China (2005)*, *Bao Steel #10, Tianjin, China (2005)* pictorializing mountain ranges of coal deposits for the world's sixth largest steel producer in these industrialized centres.

¹⁹⁴Hansen, *Ibid.*

¹⁹⁵Marcuse, *Interview*, *Ibid.*

¹⁹⁶Edward Burtynsky, "Artist's Statement," Burtynsky, Edward, and Marc Mayer, editors, *China: The Photographs*, (Steidl, 2005) 6.

¹⁹⁷Marc Mayer, "Burtynsky in China". Burtynsky, Edward, and Marc Mayer, editors. *China: The Photographs*, (Steidl, 2005) 10-11.

Considering Burtynsky's views of China may qualify as 'too much information,' they are powerful precisely because of applying the strong visual language of gardens to speak of strip mines, he explores the potency of the medium to broaden the realm of beauty. When there was no beauty identified there in the first place, the exercise is largely positive. Yet, what we learn from his China pictures though, is that the opposite may not be true and that there are contextual side effects to such works that are out of the artist's control. It is not culture itself upon which exportable Chinese aesthetics are founded so much as nature in general, and landscapes in particular.¹⁹⁸

Nature in its garden tradition has been revered, time honoured with an abiding sense for a natural order in the East. Yet, the views of exponential growth, trade wars, and vanity projects attached to capital accumulation or to states of absolute power and excess are our mirrors of globalism. What gains and tributes are attached to scenic nature or of an environment as a living entity and part of a larger whole? Is our garden seen privately to be possessed or nurtured or publicly treated as a commodity or as a common good? Civilization and culture seen through the mechanical reproduction of nature, captures our values in images of one's own making and asks are there limits if we rely on our basic human nature without a collective compass.

¹⁹⁸Mayer, Ibid.

Chapter 3.

Humanity and the Culture of Nature

Nature has a cultural history, one constructed with humans. Place and nature are embedded within the idea of landscape, which has us return to a way of seeing and living alongside of nature without dominating it. At a time with the rise of industrial capitalism in eighteenth- and nineteenth-century Europe, landscape painting was a cultural practice having come into its own and for much of the twentieth century, devalued and mystified.¹⁹⁹ Humans have always found ways to form an interactive relationship with the Earth, often transferring meaning by endowing the Earth with qualities of the only subject we know ourselves and the belief we are the only subjects. The anthropomorphic gesture is a means of making the world beyond the garden wall intelligible to us and breaking down the belief of humanity vs. nature.²⁰⁰

In framing landscapes, such as a tree of life in the Garden of Eden, a pristine wilderness in Yosemite national park, out of our elaborate visions and recreations of nature are the added memories, myths, and meanings. Landscapes are a product of culture. While we can separate nature and human perception into two realms, they are, in fact, indivisible. We know the impact of humanity on the earth's ecology has not been an unmixed blessing, neither has the long relationship between nature and culture been an unrelieved and predetermined calamity. A landscape can signify a unit of human occupation, a jurisdiction and a pleasing object of depiction. It is our shaping perception that determines the difference between raw matter and landscape.²⁰¹

There's a deep desire to be in the world and rooted in part to the cultural heritage of the West is that humans are the source of all value and meaning in the world. As much as that speaks to the dominant tradition in modern industrial societies, there remains elsewhere vibrant cultural traditions that still experience the world as a place to live rather than to colonize. In articulating those traditions above all in popular cultural

¹⁹⁹Wilson, *The Culture of Nature*, 4.

²⁰⁰Wilson, *The Culture of Nature*, 123.

²⁰¹Simon Schama, *Landscape and Memory*, (Random House of Canada, 1995) 6, 9-10.

forms such as our photographs, movies, and music, we can express a reciprocal experience of an Earth understood to be dynamic, even sacred.²⁰²

Marcuse contends an opening between scientific and non-scientific culture holds promise. Contrasting civilization in the realm of necessity and progress, the cultural realm is one of higher autonomy and fulfillment and a critical space, which has relevance for today. The scientific neutrality of pure science has made it susceptible and subject to the interests of the establishment with the theoreticians and practitioners of legalized destruction and exploitation, creating its own culture. A culture countered by such an aloofness of non-scientific culture may preserve the much-needed refuge and reservation in which works stood shockingly apart, expressing truths in images and literature are sustained and redefining culture in advanced society.²⁰³

Visual artists in the earlier part of the nineteenth century would, with few exceptions, frame and select aspects of the urban environment, and in those paintings and engravings reveal generally clear vistas, sparkling facades, and informative detail, and uniformly omitting references to the recent mechanization of London. In the Victorian era, London under imperial rule had long been Britain's governmental, financial and cultural core. The River Thames, a potent symbol of the commercial wealth of Britain, formed an expansive artery of trade and movement, while intersecting the city and linking the country's interior, and more importantly, providing access to the rest of the world.²⁰⁴

London's foul atmosphere was singled out as a key feature of modernism. The environmental cleansing of an industrial metropolis would provoke a famous retort from Monet: 'How could the English painters of the nineteenth century have painted bricks that they did not see – that they could not see?' In seeking pictorial evidence of the city's smoke-laden countenance, the paintings of the late Victorian and early Edwardian periods, particularly, show the splendid Thames-side nocturnes of James A. McNeill Whistler and the evocative impressionist river canvases of Claude Monet. The exception

²⁰²Wilson, *Culture of Nature*, 122-123.

²⁰³Herbert Marcuse, "Remarks on a Redefinition of Culture," *Daedalus*, vol. 94, No. 1, no. Science and Culture (Winter, 1965): 204.

²⁰⁴William S. Rodner and J. M. W. Turner, *J.M.W. Turner: Romantic Painter of the Industrial Revolution*, (University of California Press, 1997) 124-125.

and unparalleled visual essay on London's fog-pollution from the first half of the nineteenth century was *The Thames above Waterloo Bridge* (see figure 4).²⁰⁵



**Figure 4. The Thames above Waterloo Bridge, 1830-1835.
J. M. W. Turner (1755-1851)**

Source: Rodner and Turner, Plate 7.

London's concentration over one million inhabitants in 1801 and nearly twice as many by 1831 was drawn to a thriving regional economy with its commercial dominance, its immense and varied collection of manufacturers, and inextricable with its ever-present pollution. The modern essence of London as the greatest metropolis of the Industrial Revolution was captured by J. M.W. Turner in this painting, *The Thames above Waterloo Bridge* (1830-35). London is enclosed in an atmosphere of its own making, a place consumed by mechanization, a human community whose face and deeds shrouded by a veil of smoke, steam, and soot. Turner's interest in the effects of London's complex environment, one singularly-minded commitment to commerce, technology and

²⁰⁵Rodner and Turner, 123-125.

industrialism rests on a vision whose truth is fully accepting the city's modern pallor, as seen by the romantic sensibility, and attuned to its energy.²⁰⁶

'Environment' would create a sense of human life ordered by our surroundings and of our imprint in turn on the environs. This growing consciousness of environment across Europe, across disciplinary boundaries of science, philosophy, social science, and culture was facilitated by literature. Literature's capacity to represent sustainability can be traced to the emergent and defined interwoven terms of *environment* (Britain), *milieu* (France), *Umwelt* (Germany), and *ambiente* (Italy). Integral to the dialectic of sustainability that emerged in the nineteenth century, in damaging environmental systems, we endanger the fundamental condition that determines our human existence. Equally, how we imagine them, we have the agency to mitigate those dangers by reconceptualizing environments through creative representations that alters our sense of an environment's ambiance.²⁰⁷

The language of literature is a *metalanguage* and a multi-dimensional world. As Marcuse represents the non-scientific culture of literature, there is no established discourse of an existing state of affair as "[it] communicates a different world, governed by different standards, values, and principles." It is a different, 'other' world appearing in the established one entering daily business life, into the experience of one's self and of others, and into the social and natural environment. The world of literature becomes an essential 'other' one, a negation of the given reality; and to such a degree science has become an integral part, or a driving force behind the given reality, literature is also the negation of science. It extends to (scientific) realism in the authentic literature of the West, even in Zola's oeuvre of his society of the Second Empire it is the negation of that society in its reality.²⁰⁸

3.1. Metalanguage of the Arts

The nineteenth century period would represent an extraordinary time, one marked by the triumph of capitalism and with utopian writers and founders of the era's communal experiments amongst those responding to profound changes. There were

²⁰⁶Rodner and Turner, 122.

²⁰⁷Parham, 37-40.

²⁰⁸Marcuse, *Remarks on a Redefinition of Culture*, 204.

changes, “the disruption to traditional modes of agricultural and artisanal labor; the rapid spread of new technologies and the accompanying damage to the natural environment, and the growth of urban centres”. Over a period of three decades from the 1820s, two utopian socialists Robert Owen and Charles Fourier who were influential in the United Kingdom and United States, would establish dozens of Owenite and Fourierist communities in Great Britain and North America. As the appeal for utopian social experiments would wane by the mid-century, it was later in the century, utopian literature would flourish with imaginative works as a way of understanding the era.²⁰⁹

An imaginative dimension suggests a way of exploring literature and sustainability to pose more complex questions and models of how we might live with other forms of nature or other kinds of sustainable societies. Novelists William Morris and Émile Zola in the late nineteenth-century were aware and eager to express in their work those ideas in Britain and France, which we would now identify as anticipating sustainability.²¹⁰ In their different ways, *News from Nowhere* (1890) and *La Terre* (1887), two contemporary novels, did signal those ‘discursive constructions of nature shape and condition human valuation and understanding of the environment’ similar to sustainability having a presence in nineteenth-century literature, and how these constructions could now inform discourses of sustainability.²¹¹

In William Morris’ *News from Nowhere* (1890), this utopia or ‘no place’ invites us to explore a society in the 21st century freed from a mechanical existence of present day England. Morris’ flaneur, William Guest traverses the terrain as a wanderer into a foreign land, charting those curiosities that cross his path and on how things have come to pass or may still yet come to pass in the culture of nature. Its loci are scenes along the Thames transporting a vision from Morris’ lecture delivered at Hammersmith, *How We Live & How We Might Live* (1884).

Morris would recount the early days of the history of man as a slave to his most immediate necessities of Nature being mighty, and man was weak. In time, Morris would press upon the idea, after nearly conquering Nature, wouldn’t one have more leisure

²⁰⁹Michael Robertson, *The Last Utopian: Four Late Nineteenth-Century Visionaries and Their Legacy*, (Princeton University Press, 2018) 2-3.

²¹⁰Adeline Johns-Putra, et al., editors. *Literature and Sustainability: Concept, Text and Culture*, (Manchester University Press, 2017) 5-6.

²¹¹Parham, 41.

time to pursue thoughts to higher things, and yet “[o]ut of that dream he must wake, and face things as they really are”. The reality is Nature has been conquered, as the business is the organization of man, who wields the forces of Nature and yet, man remains unconquerable.²¹²

As society evolved, the lands would shift from the hands of the farmers controlling the country produce and neglect of the fields and acres to an epoch where people would flock to the country to create a vivified world of a happy and leisurely life of a townsmen with no discernable difference between town and country.²¹³ The community historian, Hammond, would share with Guest the beginnings of a feudal society nestled in the clearings of wood and waste, of a few towns, and markets for folks, gathering places for craftsmen to:

... a country of huge and foul workshops and fouler gambling dens, surrounded by an ill-kept, poverty stricken farm, pillaged by the master of workshops. It is now a garden, where nothing is wasted and nothing is spoilt, where the dwellings, sheds, and workshops scattered up and down the country, all trim and neat and pretty.²¹⁴

For the social order of civilization, the means of production be retained in its own hands, owned by no individual, but used by all occasion called for its use, and only on those terms; on any other terms people would be driven to accumulate private wealth for themselves, and, to waste the collective goods of the community and perpetuate the monopoly of class division, which means continual war and waste.²¹⁵

Morris’ socialist values of equality and community would continue to be of importance. As Morris asserted, ‘The leading passion of my life has been and is hatred of modern civilization.’ This hatred would grow out of a passion for history and a ‘deep love of the earth and life on it’.²¹⁶ This considered objection was to a system, which

²¹²William Morris, “How We Live & How We Might Live,” *The Collected Works of William Morris with an Introduction by His Daughter May Morris*, (Cambridge University Press, 2012) 14-15.

²¹³William Morris. *News from Nowhere ... or .. An Epoch of Rest*. Reprinted 1966, Monthly Review Press, (1890) 90.

²¹⁴Morris, *News from Nowhere*, 91.

²¹⁵Morris, *How We Live & How We Might Live*, 22-23.

²¹⁶William Morris, and David Leopold, *News from Nowhere, or, An Epoch of Rest: Being Some Chapters from a Utopian Romance*, (Oxford University Press, 2003) viii-ix.

allowed 'machines to be our masters and not our servants'; it was this enslavement to 'monsters we have created', and not machinery itself, which disfigured modern life.²¹⁷

Examining our relationship with nature, brings to the fore a system of organizing work and downgrading of nature, no longer seen as a threat or an environment for human life:

... Was not their mistake once bred of the life slavery that they had been living? – a life which was always looking upon everything, except mankind animate and inanimate – 'nature', as people used to call it – as one thing, and mankind as another. It was natural people thinking this way, that they should try to make 'nature' their slave, since they thought 'nature' was something outside them.²¹⁸

A generation under threat from global warming, a phenomenon brought about by the 'subjection of nature's forces to man's machinery, application of chemistry to industry and agriculture, steam-navigation, railways, electric telegraphs' are instances of progress. One may find the originating myth of the novel is pastoral and, to an extent, nostalgic; yet on closer examination it reveals a vision of a society centred on a practical and sustainable relationship with nature.²¹⁹

Morris holds that revolution, which signals a change in the basis of society, may alarm people. At minimum it sounds a warning: there is something to be afraid of and the danger will not abate if ignored; and may encourage people, and will mean for those not the least of, but a hope. Its call for all civilized nations would form one great community, agreeing together as to the kind and amount of production and distribution needed; working at specific productions where it could be best produced; avoiding all unnecessary waste.²²⁰

There is a new dawn, a new spirit of the new days, delighting in a life world from which an intense and narcissistic love of the self and earth on where man dwelled when capitalism was destroyed.²²¹ The industrial age with its vantage point converged onto

²¹⁷Morris, *How We Live & How We Might Live*, p. 24.

²¹⁸Morris, *News from Nowhere*, 219.

²¹⁹William Morris and Clive Wilmer, *News from Nowhere and Other Writings*, (Penguin Books, 1993) xl.

²²⁰ Morris, *How We Live & How We Might Live*, 3, 7.

²²¹Morris, *News from Nowhere*, 162.

urban centres and regional economies highlighting the unintended societal and environmental risks:

... and don't you find it difficult to imagine the times when this little pretty country was treated by its folk as if it had been an ugly characterless waste, with no delicate beauty to be guarded, with no heed taken of the ever fresh pleasure of the recurring seasons, and changeful weather, and diverse quality of soil and so forth?²²²

At the bequest of the youthful citizens of the future to the time travelling guest of the past, be prepared for a new day of fellowship and rest, and happiness. Consciousness awakens to a new ethos, "Yes, surely, and if others can see it as I have seen it then it may be called a vision rather than a dream".²²³ Morris' claim is that all work should be creative and pleasurable.

The novel shows the possibility of a better world. While Morris' dream is a response to Bellamy's *Looking Backward*, a journey into the Year 2000 as a failed parable, it encouraged him to formulate an ideal world of his own, just as we are encouraged to dream for ourselves. The way to read utopian literature is to consider it as an expression of writer's disposition. *News from Nowhere* was first, an expression of discontent and, second, a personal vision, born of one man's passions and preoccupations with how we might live and how different the world might be.²²⁴

Morris was a prominent member of the Social Democratic Federation, and he would represent an 'early green politics, which sought to adapt a prevailing Marxist emphasis on industrial production with the values of decentralized, land-based economies. Given the origins for this would lay in Morris' British Romanticism, a perspective also to have had roots in 'Germania', this extolled northern European models of rural, democratic, communal and subsistence living. An influence Morris shared with Marx and Engels, and derived from the social and intellectual context of not least the doctrine of cameralism, common in 18th century Germany, which advocated for strong public administration of a centralized economy to benefit the state.²²⁵

²²²Morris, *News from Nowhere*, 229.

²²³Morris, *News from Nowhere*, 258.

²²⁴Morris and Wilmer, xxxiv-xxxv.

²²⁵Parham, 42.

News from Nowhere could be seen as a political narrative with as much pragmatism as literary purpose. Equally the novel reveals the difficulty in evidencing an ambient eco-aesthetics of sustainability, as the ideal sustainable society does not exist, cannot, exist; it is indeed, 'nowhere'. Morris was aware and saw a more radical, realistic conception of sustainability as a permanent, ongoing project, working with nature that can't ever be definitively managed. As such, utopian society, loosely understood, was as much a management of nature as those lamented by environmental critics of modernity. This was also Zola's understanding. His portrayal of an existing society articulates both the anxiety that arises from the dialectical struggle to live within nature, an anxiety strained further by modernity, and the environment in which human life can be sustained.²²⁶

3.2. Expanding Views of Literacy

The expanding agrarian market economy of the fenlands and enclosures in England, and its associated impacts on the human subsistence economy reflect the ecological effects of early capitalist agriculture. While marshlands all over Europe had been reclaimed for agricultural use since earliest times, in 17th century Holland and England the process was accelerated by the continuing expansion of the rural market economy and the export of Dutch hydraulic technology. The economy of the fenlands had been maintained by an ecological balance between human needs, animal grazing, crop yields, and soil fertility for hundreds of years of peasant tradition. The commons with the human-land connection would maintain the soil ecosystem with organic fertilizers (manure), and gradually agricultural improvements to specialized profits at the expense of the environment and village community. The enclosures would represent to the English the most common way to enter the market economy and create many landless, unemployed labourers.²²⁷

In England, enclosure movements such as the Diggers' communal approach in managing the earth with its marked egalitarianism would herald a chief characteristic of modern radicalism.²²⁸ Gerrard Winstanley, organizer of the Diggers, who in 1649 took

²²⁶Parham, 43.

²²⁷Merchant, 51, 55-58.

²²⁸John Gurney, *Brave Community: The Digger Movement in the English Revolution*, (Manchester University Press, 2007) 104.

possession of St. George's Hill in Surrey and began to cultivate the commons and wastes, believed that by working together the poor could make the earth "a common treasury" for all. The Diggers advocated cooperative farming of the commons and the intensive cultivation of crops.²²⁹ In some ways, the Diggers foreshadow the smallholdings and allotments movements of the late 19th and 20th century and the *partageux* of the French revolution, poor peasants who favoured the enclosures if it resulted in their distribution amongst the landless.

The peasants in mid-nineteenth century France, were the weary souls of a long 2,000-year campaign of exploitation and extermination, which began with enslavement by the Romans and continued through centuries of serfdom, injustice and the tyranny of rapacious aristocrats. Although the Revolution of 1793 involved the peasants, they did not directly benefit as serfdom, indentured servitude, would be exchanged for the land. It was not a bucolic existence as the peasants would become grist for the mills of distant, city-based capitalism, prey to the volatile markets of supply and demand, and increasing taxes and falling prices.²³⁰

In a contemporary work, Émile Zola's *La Terre* (1887) explores a dystopia, one in a new form of realism, Naturalism. The 'truth' as Zola intended could only be attained, he argued, through meticulous documentation and research in a literary experiment. Fiction was used to demonstrate several 'scientific' notions about the ways in which human behavior is determined by hereditary (race) and environment (milieu). At the heart, it is a concern with representational integrity that meant a commitment to represent the modern world as it is behind the respectable façade of its bourgeois morality and institutions, and to the idea that literature does have a social function.²³¹ Zola's dark vision of the peasant world was a grim, realistic depiction of rural life in contemporary France and the social aspects of property.

France was mainly a country of villages, and in 1871 the rural population made up two-thirds of the whole population. The novel's landscape of rural France would include a large and varied cast of characters to peasant smallholders, a shepherd, farmhands, labourers, a factory owner, an absentee landlord, a doctor, a vet, a notary, a

²²⁹Gurney, viii, 123.

²³⁰Émile Zola, *The Earth*, Edited by Stephen R. Pastore, (Grand Oak Books Publishing, Ltd., 2011) 7.

²³¹Émile Zola, *Earth*, Translated by Brian Nelson and Julie Rose, (Oxford University Press, 2016) vii-viii.

tax collector, a schoolteacher, and two long-suffering parish priests. Politics, both national and local, would offer a sense of the ongoing debates about protectionism versus free trade during a time of legislative elections.²³² In the words of Monsieur de Chedeville, “What’s killing us is this free trade the Emperor’s so keen on ... after the treaties of 1861, people hailed it as a miracle.” Market prices for grain would fall and shift a district deputy and aristocrat’s view on trade, “I’m for protection, we need to defend ourselves against foreigners.”²³³ Globalization is a threat to local farming and commerce.

The issues underlying this agricultural crisis was to last until the mid-1890s becoming the subject of recurring division or reference in the novel. On May 2nd, 1886, Zola had lunch with socialist writer and activist Jules Guesde, leader of the French Workers’ Party, who published several articles on rural economic problems. Zola was enlightened on views afflicting the nation since the 1870s when competition abroad, especially importing cheap wheat from the United States would drive the price of grain down. As Zola would write in his *Ébauche*, a preliminary plan for the novel, ‘I want to write a poem of the Earth’. The main character is Mother Earth, ‘A gigantic character, always present, filling the entire book’.²³⁴

The peasant’s obsession with land ownership and acquisition is the central theme of the novel. Property would establish their very existence.²³⁵ Inheritance and property does convey a vital, formative role to individual identity. Zola would underscore that the possession does reinforce the familial standing of individuals. Territorial power is linked directly with social respect.²³⁶ Landless parents would become surplus, while brothers, sisters, and cousins would become rivals, agents in the distribution and disintegration of land holdings.

The Earth as Zola would express has an enduring, regenerative quality. Far from an affinity for obscenity, the scatological elements found throughout the text belongs to a literary tradition which the influential Russian literary critic Mikhail Bakhtin, in a celebrated study of the work of François Rabelais (1494-1553), calls *grotesque realism*.

²³²Zola, *Earth*, xiii.

²³³Zola, *Earth*, 119.

²³⁴Zola, *Earth*, xiv-xv.

²³⁵Zola, *Earth*, xv.

²³⁶Kate Griffiths, *Émile Zola and the Artistry of Adaptation*, (Modern Humanities Research Association and Maney Publishing, 2009) 14.

This form of realism, rooted in the festive (carnavalesque) spirit of popular culture of the Middle Ages, revels in bodily life in opposition to the harshness of everyday existence. In the field of realistic literature, the fragments of grotesque realism aren't simply traces of the past but reveals a renewed vitality.²³⁷

Human indolence, lack of interest, greed, jealousy, alcohol, or lust would interfere with the essential work of cultivating the earth. The land surrounding the Beauce was becoming 'exhausted' and 'infertile' with concerns facing the changeability of nature, the variability of human nature, and more specifically the impact of modernity:²³⁸

For centuries, the peasant took from the earth without dreaming of giving anything back in return, knowing only manure from his two cows and his horse, with which he was very sparing. The rest was left to chance, the seed was sown anywhere, germinating at random, and if it didn't germinate it was God who was to blame. The day when the peasant farmer, educated at last, went in for rational, scientific farming, production would double. But until then, ignorant, pig-headed, without a sou of capital, he'd destroy the land. And that was how the Beauce, the age-old granary of France, flat and waterless, and which only had its wheat, was slowly dying of exhaustion, tired of being bled dry and feeding a population of idiots.²³⁹

The land has been exacerbated by human indolence and the novel contains ongoing discussions about how to increase yield. Mainly expressed by the progressive farmer Hourdequin, possible solutions would include new techniques such as chemical fertilizers, methods of crop rotation, soil analysis accounting and mechanization. Leading to another discussion on the advantages of small-scale and industrial farming with personal investments in the land offset by increased hard labour, to decreased economies of scale and the impossibility of deploying machinery on small plots. The dire search for solutions, partly resulting from human imperfection but also the problems modernity has created, infers modernity's essential inability to conserve sustainability.²⁴⁰

In *La Terre*, Zola acknowledges and explores nature and the environment as an agential living force; translated into a related study of how humans could exist and

²³⁷Zola, *Earth*, xviii.

²³⁸Parham, 46.

²³⁹Zola, *Earth*, 121.

²⁴⁰Parham, 46.

sustain themselves within endlessly shifting, emergent environments; and capturing anxieties contained within discourses around sustainability as reflected in:²⁴¹

The droughts of summer, the absolute lack of water, had dried out the earth and it was cracking; and all the vegetation was disappearing, all that was left was the dirty stain of dead grass, the hard spikiness of the stubble, in square patches that extended the ravaged, mournful emptiness of the plain to infinity, as if a bushfire had passed along the horizon from one end to the other.²⁴²

Zola intensified this sense of man as well as nature being bound in a cyclical pattern by emphasizing their essential unity. It's not surprising an agricultural people, close to the earth and conscious of its dominating place in their lives, should have a 'circular' view of human existence. The circular pattern influences imagery and, even more directly, the structure of *La Terre*.²⁴³ The land mirrors the identity of individual characters. As humans assume certain characteristics of the land from which their body is metaphorically shaped, and in kind the land is personified. Zola would describe the land with blood pulsing, albeit feebly, through its veins.²⁴⁴

The overall rhythm of the descending arc of the circle, to be followed naturally by the ascending arc is part of a dramatic sequence unfolding within the larger framework. Near the end of the novel, this is seen clearly where death, defeat, and the threat of war are accompanied by the sowing of the grain and the start of a new cycle. Much of the aesthetic effect of *La Terre* is based on the frequent expanding movement from a close-up view characterized by tension to a global view that brings with it tranquility and resolution of tension, on the focus from mortality of man to the perenniality of the earth.²⁴⁵

It was like all those stories of revolutions and those political upsets that people kept prophesying. It was said that the land would pass into other people's hands and harvests from other countries would overwhelm ours and all our fields would be overgrown with brambles. So what, can you harm the earth? She'll still belong to someone who will be forced to cultivate her in order not to starve. If weeds were to grow over her for years, that would give her time to rest and become young and fruitful again. The earth

²⁴¹Parham, 44.

²⁴²Zola, *Earth*, 235.

²⁴³Harvey, 90.

²⁴⁴Griffiths, 16.

²⁴⁵Lawrence E. Harvey, "The Cycle Myth in *La Terre* of Zola", *Philological Quarterly*, vol. 38, Jan. 1959: 94.

takes no part in our petty, insect-like disputes, she pays no attention to us than to a nest of ants, she merely goes on toiling, forever.²⁴⁶

La Terre endures with echoes of past events replete with memories and suspicions of being repeated in the future. The cyclical repetition of nature echoes the cycles of human behavior, cycles defined by the literal and genetic inheritance explored at the heart of *La Terre*.²⁴⁷

Zola's novel comes full circle, closing as it opens, with the scenes of sowing an image of eternal renewal. Despite the petty disputes, crimes, and violence committed by human beings, as implied, may play their part in the evolutionary process of humanity shrinking to relative insignificance, like so many tiny insects, within the great scheme of Nature and her eternal laws. As Jean walks away, leaving Rognes for the last time, the world view presented through the confused thoughts swirling in his mind is that of Darwinian evolution.²⁴⁸

You're a breed that reached the end of the line, you've been eaten up by your idiotic love of the land, all those miserable strips of earth that have turned you into slaves, which prevent you from seeing any further than the end of your noses, and which you'd commit murder for! You've been wedded to the earth for centuries and she keeps cheating on you. Look at America, the farmer is master of all his land there. There's nothing to attach him to it, no family connection, no memories. As soon as the field is exhausted, he moves on.²⁴⁹

The reapers are insects that eat the robe of the Beauce and leave her, a forlorn lady. At the end of the novel, the pattern of birth and life and death and birth that forms the circle of natural immortality is expressed quite clearly.²⁵⁰ *La Terre* is structured around notions of a return. Seasons recur, fathers are metaphorically reincarnated as their sons, land is lost and regained, and even movements of the local *abbé* (abbot) are structured around notions of a seemingly eternal return.²⁵¹

Zola's conception of society is shaped by a biological model informed by the struggle between the life instinct and the death instinct, the forces of creation and

²⁴⁶Zola, *Earth*, 428.

²⁴⁷Griffiths, 20.

²⁴⁸Zola, *Earth*, xix-xx.

²⁴⁹Zola, *Earth*, 388.

²⁵⁰Harvey, 90, 92

²⁵¹Griffiths, 24.

destruction. A naturalist world is an entropic world, in which nature inevitably reverts to chaos, despite human efforts to control its course and create order; but there is also an emphasis on regeneration, on collapse being part of a larger cycle of disintegration and renewal.²⁵² Zola was fascinated by change, and specifically by the emergence of a new, mass society. The economic engine of change was the rapid growth of capitalism, with all that it entailed in terms of transformation of the city, new forms of social practice and economic organization, and heightened political pressures.²⁵³

3.3. Discursive Forces of Sustainability

Capitalism and its discontents remain relative to technological change that can render relations to production obsolete such as a steam mill demands mobile workers, not serfs tied to the land. Marx believed, when the production forces of raw materials, machines and labour are no longer aligned to the relations of production, these relations would 'turn into fetters' and awaken a social revolution. The ideology of the 'status quo' revealed by Marx's system of ideas is more of an inspiration to political activism and the nature of capitalism is contingent on economic factors and those influences on politics and culture.²⁵⁴

Morris and Zola's literature enriches an 'aesthetic transformation' through a cultural discourse in a metadiscursive space. A contemporary reader may discern important lessons about sustainability in a complex environment in which it informed the writing to access 'distinct form[s] of textuality and knowledge' from the narrative, imagery, and characters. It's a window to consider complex interactions of the long durée of evolution and survival beyond short-term economic interests. The 'living force' posited into the texts was to revive an understanding of sustainability. The reader's active engagement to bring meaning to the texts and potential 'creative energies' of these texts can traverse across periods and cultures, with the writers' help to untangle the human-environment relations emerging across Europe.²⁵⁵

²⁵²Zola, *Earth*, 331.

²⁵³Zola, *Earth*, vii.

²⁵⁴Anthony Kenny, *An Illustrated Brief History of Western Philosophy*. Illustrated ed., (Blackwell Pub, 2006) 306, 308.

²⁵⁵Parham, 47-48.

Sustainability can be historicized and what approaches as contemporary, ecological ideas were discernable, unnamed concepts from the cultural currents of post Romanticism. The discourse of sustainability compels us to reconsider, since the 1960s it's not a historically specific response to a particular crisis such as anthropogenic climate change or excesses of consumer society, but an ongoing response to modernity. There are cultural traditions with an embedded understanding of ecological laws to form an enduring basis to human life; and those natural principles render sustainability a political issue and questions the structure of society. As one awakens from a dream of a better place, a sustainable society will 'never definitively [be] won' and to aspire to a human-nature connection, the project of sustainability is eternal and working with the discursive forces of 'nature' that we know will never be definitively managed.²⁵⁶

Conservationism of the 1950s would re-emerge by the early 1960s as humans have always intervened in nature, our relations with the natural world were largely understood to be in crisis. From the mid-19th century on, a great many popular social movements were mobilized in response to an accelerated rate of species extinction and displacement. The anti-modern responses of the urban parks movement, wilderness preservationist, communitarian socialism, Romanticism, agrarian populism would develop different approaches to the cult of progress and the domination of nature in North America all to halt the industrialization of the land. The idea that nature should be used wisely, Conservationism drew on ethical and scientific traditions while often compromising its opposition to the production economy and as an industrial strategy it is deeply intertwined with the Western world view, and failings as a political strategy.²⁵⁷

Sustainability would develop as the social and political wing of human ecology. The modeling of sustainability and larger diffusion into society can look to why the word 'ecology' coined by Ernst Haeckel in 1866, remained in the cultural background until later in the twentieth century. The practical associations raised by the Romantic idea of a living, powerful nature was hidden under a competing, increasingly dominant free-market liberalism. Similarly, in Germany, the Romantic paradigm of Vitalism, stressed that phenomena in nature have 'ceaseless vitality, autopoiesis, power and beauty'. Goethe was integral in the idea of sustainability as a considered way for how human activity

²⁵⁶Parham, 48.

²⁵⁷Wilson, *Culture of Nature*, 130-131.

through land use, industry, development, social structures answers to a nature that is dynamic and turbulent. The state-administered strategies of petty central European states to achieve sustainability through self-sufficiency, environmental improvements under the doctrine of cameralism was outdated and liberalism ensured its invisibility.²⁵⁸

The paradox of sustainability, which maintains limits and constraints while concurrently seeking to transform human lifestyles and behaviours is not a weakness. Even when colonized by ideology, 'sustainability' remains a flexible, agile paradigm, perpetually political, and so perpetually historical. In a sense, a more useful concept might, arguably be *sustenance* of making choices between technological and organic food production and creating conditions for sustaining ourselves and co-existing with nature and an environment upon which we rely. Zola's solution, as an example to society's anxiety, in the importance of working the land to view technology judiciously with a balanced application of new technologies and techniques in an open system with nature.²⁵⁹

Land use patterns in rural areas were traditionally places of economic and cultural diversity, and of partnership with nature. Since the Industrial Revolution, with its unbalanced concentration of production, power, and wealth in the cities, it's been possible to think of the country as primarily the site of agriculture, and secondarily a place of retreat. To restore the working landscapes, must begin with working the edges of the land, the places it connects, the ways it gathers itself together and draws in human communities. It's a renewed connectedness, a return to a sense of place while the social distinctions of country and city dissolve. Agriculture was one activity among many to integrate natural and social economies and more importantly, the reconciliation of work and nature.²⁶⁰

Sustainability is a discourse articulating an anxiety about whether we can sustain ourselves in the project of modernity to find practical solutions and those considerations by which we might sustain human being.²⁶¹ In works of art, there is the art of possibility for greater awareness, a chance to see human creativity not limited to destructive,

²⁵⁸Parham, 35-36.

²⁵⁹Parham, 48.

²⁶⁰Wilson, *Culture of Nature*, 196-198.

²⁶¹Parham, 36.

extractive, narrowly self-interested purposes, and to change what the landscape can mean to us. As philosopher Tristan Garcia has argued, “the primary impulse to try and to locate ourselves from above is essentially one of hope, an existential impulse to attempt to understand ourselves and, ultimately, to take responsibility’.²⁶²

In the realm of art, reflections on art for its part cannot shield the truth presented in whatever we are questioning. Art when simply called *techne* was a revealing, holding complete dominion in all the fine arts, in poetry, and in all things poetical to bring forth a yielding of space and a trust fund of truth. Art can shock us to see ‘truth’ and holds our eyes open to extreme danger. To understand fully, art wasn’t a sector of cultural activity functioning in a space where the artistic and artworks were enjoyed aesthetically. In our pure aesthetic-mindedness, we are risking our ability to guard, and preserve the coming to presence of art. In keeping with this possibility, the tumult of technology may entrench itself everything technological, becoming ubiquitous and the essence of technology may come to existence in the coming-to-pass of truth. The more we consider the essence of technology, the more enigmatic the essence of art becomes.²⁶³

The awareness we are ecological beings, part of nature isn’t lost on us when confronted with a dystopian view of life. If the need for a ‘dark ecological’ aesthetic rather than idealizations of nature aids to confront estrangement from nature, it’s because its deeply embedded in the human condition in the form of denial and delusion, A sensitized consciousness with the environmental crisis has elevated the work to overcome this distance to shattering illusions as necessary beginning to effectively to politicize ecological sentiment. The adaptations to compel and challenge how, in practical terms, we can symbiotically co-exist with nature.²⁶⁴

Progress towards this path asks us to re-evaluate our relationship with nature and science. A scientific view must free itself from the fatal dialectic of Master and Servant, which completes the conquest of nature into the tool of exploitation, and into the technology of perpetuation in ‘higher’ forms at its brink to annihilation. It calls for a return prior to this freedom of science of the non-scientific culture in preserving the

²⁶²Sophie Hackett, “Near and Far: New Views of Anthropocene,” *Anthropocene: Burtynsky, Baichwal, DePencier*. (Toronto: Art Gallery of Ontario, 2018) 30.

²⁶³Martin Heidegger. *The Question Concerning Technology, and Other Essays; Translated and with an Introduction by William Lovitt*, 1st ed., (Harper & Row, 1977) 33-35.

²⁶⁴Parham, 40-41.

images of the ends by which science itself cannot and does not define that being, the ends of humanity.²⁶⁵

In dialogue, art practices can enable us to imagine possible futures and technology can be very helpful in that area. If we don't imagine things as they could be, it's much harder to get there. "Dialogue becomes absolutely critical", Marcuse expresses, "in how policy change can happen because of human connections." One of the assets of working with the arts in change agendas is that if one works with metaphor as your language, it's a much more open space because people will see different things.²⁶⁶

A utopian notion must release the view is from nowhere and accept the view is always from somewhere. People differ, and conditions vary according to time and place. A more objective truth can be understood through multiple perspectives, formed by a multi-dimensional approach, or validated by a pluralistic perspective when it comes to visions of the good life, there are many ways for humans to flourish. From this, it follows that no concepts concerning the social world can be taken as given either, which means that ethics and politics must adjust to circumstances. Ideas are not of placeless universality and are not bound to specific cultures nor free-floating, like people they are formed by culture and highly mobile.²⁶⁷

²⁶⁵Marcuse, Remarks on a Redefinition of Culture, 205.

²⁶⁶Marcuse, Interview, Ibid.

²⁶⁷Julian Baggini, How the World Thinks: A Global History of Philosophy, (Granta Books, 2018) 337-341.

Chapter 4.

Reflections on Sense of Place

The modern world of the early 19th century was fragmented. Similar to the old Greek myths would serve, a conscious process to construct modern myths for a mutable sense of place would draw on eternal images and properties to understand life. Myths would embody something inarticulate, and manage to capture the essence of the dark, the irrational, the inexpressible, which conveys the depth of darkness in which images extend to further images and which themselves set some infinite direction. As Isaiah Berlin said, “[a]ll art is an attempt to evoke by symbols the inexpressible vision of the unceasing activity of life” with its lasting effects.²⁶⁸

Romanticism’s blossoming in the early nineteenth century would see novelty as a valuable attribute in a work of art. It was the duty of the artist to create and bring something new into the world. It was a time of originality, and ideas emerged with the genius of the artist to reshape the world at will, and an authenticity for human beings to freely follow only values they created or somehow made their own as a value in of itself, possibly over any other. The Romantics would offer a new lease on life to ideas and the values they scorned.²⁶⁹

The German artist, Caspar David Friedrich (1744-1840) embodied Romanticism as he displayed subjectivity, spirituality, and the love of nature. He chose to paint this landscape, *Wanderer above the Sea of Fog* (see figure 5), vertically framed as a portrait instead of the much-seen horizontal orientation.²⁷⁰ Friedrich’s pursuit of an ideal dimension within nature becomes an unattainable place for man, reduced to an insignificant species along the spectrum of life.²⁷¹

²⁶⁸Isaiah Berlin and Henry Hardy, *The Roots of Romanticism*. 2nd ed, (Princeton University Press, 2013) 141-142.

²⁶⁹Berlin and Hardy, xiii.

²⁷⁰Casper David Friedrich, Retrieved 13 May 2019, https://www.artble.com/artists/caspar_david_friedrich/paintings/wanderer_above_the_sea_of_fog#story_theme.

²⁷¹Raffaella Russo, *Friedrich: German master of the Romantic landscape - his life in paintings*, (London: Dorling Kindersley, 1999) 86.



Figure 5. Wanderer Above the Sea of Fog, 1818. C. D. Friedrich (1744-1840)
Source: Friedrich, Caspar David. *Wanderer Above the Sea of Fog*. 1818. *Hamburger Kunsthalle*, www.kunsthalle.de/en/online-collection.

A lonely figure is confronting nature in astonished reverence, and the sublime shudder in the face of natural phenomena is intended without literary references. When

one steps closer, so that the frame is no longer in the field of vision, the view of nature opens to a panorama and appears limitless. Friedrich was trying to represent in this painting the tacit truth of the force behind nature, and the sublime silence of God who, according to Spinoza, could only be grasped as a *logos*.²⁷² Burtynsky points to the 19th century landscape artists having an affinity for an elevated view to turn the space into a mythic space, an archetypal sense of landscape.²⁷³

An aesthetics of the sublime was codified by Edmund Burke in his *Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful* (1756). Its historical reference reaches back to Longinus, whose Greek treatise *On the Sublime*, dates from the 1st century A.D. Longinus makes an essential distinction between the sublime and beautiful. The sublime is of such beauty as to inspire great admiration or awe. In the natural world, sheer vastness produces such intense emotions as awe and terror. Burke believed the sublime and beautiful were perceived emotionally, not intellectually, and he was internationally influential in the latter half of the 18th century. This is Burke's formulation of the sublime:

Whatever is fitted in any sort to excite the ideas of pain and danger; that is to say, whatever is in any sort terrible, or is conversant about terrible objects, or operates in a manner analogous to terror, is a source of the sublime; that is, it is productive of the strongest emotion which the mind is capable of feeling."²⁷⁴

When confronted by the sublime in the natural world such as a raging flood, a hurricane, a precipitous cliff, man is overcome by an ecstasy of terror and the limits of his own domination. It evokes an anxiety in the face of nature, and an exhilarating, charged recognition of nature's infinite power over humankind.²⁷⁵ Friedrich's image of nature is realistic and using light in a traditional way invested with spiritual meaning becomes an expression to natural phenomena.²⁷⁶

²⁷²Alexander Rauch, *Neoclassicism and the Romantic Movement: Painting Europe between Two Revolutions 1789-1848. Neoclassicism and Romanticism: Architecture Sculpture Painting Drawing 1750-1848*, edited by Rolf Toman. (China: Konemann, 2006) 435-436.

²⁷³Mark Haworth-Booth, "Edward Burtynsky: Traditions and Affinities", *Manufactured Landscapes: The Photographs of Edward Burtynsky*, (Ottawa: National Gallery of Canada in association with Yale University Press, 2003) 35.

²⁷⁴Haworth-Booth, 34.

²⁷⁵Paul Roth, "The Overlook," *Burtynsky: Oil*, Corcoran Gallery of Art, Washington, DC. (Gottingen, Germany: Steidl, 2009) 169.

²⁷⁶Russo, 86.

A new way of seeing the extent and the power of the forces of the world would awaken a new consciousness and infuse the word *Nature* with new meaning. The provocation was the Industrial Revolution and the new light, literally and figuratively it cast on the landscape.²⁷⁷ Samuel Smiles spoke for landscapists, as for many others, when he said ‘the iron rail proved a magicians’ road. The locomotive would celebrate man’s ability to compress space and time. The networks would virtually reduce England to a sixth of its size, bringing the country nearer to the town, and the town to the country. Artists had become accustomed to a mode of travel a previous generation had found amazing and alarming, without any awareness of the eventual disastrous consequences of people’s desires for boundless mobility.²⁷⁸

Centres of industry had existed in the eighteenth century virtually independent of each other and distributed across parts of the country by its natural resources or sources of energy. It is interesting to visualize and understand the demographic and economic shifts in the first half of the nineteenth century when enterprises would consolidate into cities, and ‘the ancient timber economy was at last replaced by the age of coal and iron’. The railway age was to have commenced in 1830 and by 1854, a journey from London to most destinations to Scotland or Wales would be less than a day. It’s against this backdrop, the great technological innovations that fuelled the Industrial Revolution had been mostly established fifty years prior to the founding of the Pre-Raphaelite Brotherhood.²⁷⁹

4.1. Truth to Nature

Representing the natural world as true to the physical places and its unique geological forces was the focus of the serious landscape painter. Landscape painting would assume new gravitas and significance at a time when the outside world was understood only as a familiar setting of man’s existence. The art informed by the knowledge of the vast, and gradual changes to the actual landscape would have people see the landscape in a new and analytical way, evidenced by the process of stupendous

²⁷⁷John Berger, “The Dilemma of the Romantics”, *Landscapes: John Berger on Art*, edited with an introduction by Tom Overton, (Brooklyn: Verso., 2018) 107.

²⁷⁸Allen Staley, et al., editors. *Pre-Raphaelite Vision: Truth to Nature; [on the Occasion of the Exhibition at Tate Britain, London 12 February - 3 May 2004; and Touring to Altes Nationalgalerie, Berlin 12 June - 19 September 2004; Fundació “La Caixa”, Madrid 6 October 2004 - 9 January 2005]*, (Tate Publ, 2004) 180.

²⁷⁹Staley, et al., 179.

forces having been, and still at work. Artists were both part of the community and served it by documenting the physical world. The Pre-Raphaelite Brotherhood's representation of landscapes in the movement's primary phase was concerned with the careful documentation of a real physical world.²⁸⁰

A group of seven young artists, led by Dante Gabriel Rossetti, John Everett Millais, and William Holman Hunt, founded the Pre-Raphaelite Brotherhood in London in 1848. Like other avant-garde groups in the nineteenth century such as the Nazarenes in Germany, the Realists in France, and later, the Impressionists, they were united against the style of painting taught at the Royal Academy of Arts and similar institutions. Admirers of the past ideals of harmony and beauty, simplicity, and clarity of medieval European art before Raphael, they described themselves as "Pre-Raphaelite" and would adopt a novel style, and a novel palette using brilliant colours and precise brushwork. Their greater campaign took aim at the commercialism of Victorian art through their produced radical critiques of visual representations of the real as well as a more beautiful and ethical world.²⁸¹

Pre-Raphaelitism is, *par excellence*, the art of mid-Victorian Britain (1848-c.1875). The historian E. J. Hobsbawm has described this period as 'the age of capital', an era of economic and political stability after the upheavals of the 1840s. Across Europe 1848 was a year of revolutions, while in Britain Pre-Raphaelitism's birth coincided with the last great political protest of the 1840s, a demonstration mounted by the Chartist movement. Chartism, the first mass movement of the industrial working class would demand a series of political reforms including manhood suffrage and fair wages. Hunt and Millais would witness the demonstration, and in turn effect changes to academic traditions.²⁸²

Demonstrations of popular unrest were less frequent in the 1850s, and a decade can be understood where the middle classes would rise with changes in economic status and means. An economic boom would accompany the spectacular display of machinery, manufactured goods and raw materials from Britain, its colonies, and the rest of the world in the Great Exhibition of the Industry of All Nations. It was held in the special built

²⁸⁰Staley, et al., 133-134.

²⁸¹Birmingham Museums and Art Gallery, et al., editors, Victorian Radicals: From the Pre-Raphaelites to the Arts & Crafts Movement. (American Federation of Arts; DelMonico Books·Prestel, 2018) 36, 108.

²⁸²T. J. Barringer, Reading the Pre-Raphaelites, Rev. ed. (Yale University Press, 2012), 16-17.

iron and glass 'Crystal Palace' in Hyde Park in 1851, a temple to modernity, capitalism and international trade²⁸³ designed by the architect Sir Joseph Paxton drawing on experiences with greenhouse designs.

The exhibition was the first world's fair of art and technology and would enshrine a form of materialism to place a higher value on categorizing objects, which was reflective of the taxonomic spirit of the period. This would parallel the Pre-Raphaelite obsession with the meticulous recording of observed phenomena in their works of documentary realism and relates to contemporary developments in empirical science. Under the influence of John Ruskin, Pre-Raphaelite interest in geology, botany and meteorology is well known. A major influence would be the emergent technology of photography, which would offer a new model for representing the outside world in a seemingly unmediated, scientific manner.²⁸⁴

Pre-Raphaelitism was an avant-garde intervention into the visual culture of mid-Victorian London, in which the photograph would be an explosive new force. Initially understood as a scientific rather than an artistic practice, photography was linked by its earliest ideas of extreme authenticity and with truth itself. It was the same quality the art critics such as Ruskin perceived in Pre-Raphaelite realism, where photography and painting would compete through the 1850s to be recognized as the leading medium of visual truth in the cult of detail.²⁸⁵ E. H. Gombrich would contend an excess of detailed elements doesn't make a convincing whole, rather fragments allow an infinite range of possible reconstructions termed a 'mosiac' theory of representation.²⁸⁶

In the mid-nineteenth century this interpretation of nature was central to the pursuit of new strategies to transfer to art not just the *plein air* sensation of being immersed in nature, and the visceral quality of this experience in relation to the history of a particular milieu. Ruskin's idea of 'historic environment', was landscape art offers knowledge of the ecological and human history of a place, gave the mission of 'truth to

²⁸³Barringer, 17.

²⁸⁴Barringer, *Ibid.*

²⁸⁵Barringer, 81-83.

²⁸⁶Staley, et al., 18.

nature' a cultural dimension, calling on artists to seek evidence across time and space and to venture further afield in Europe and the Middle East.²⁸⁷

Ruskin was one of the earliest to perceive the looming environmental crisis and emphasized the value of studying and revering natural forms. Ruskin's fundamental insights are as valid now as in the Victorian movement. Ruskin also understood the relationship between creative, rewarding labour and psychological well-being. Above all, to value the quality of human life above the pursuit of profit, "[t]here is no wealth but life." These are radical sentiments derived from the close study of medieval art and architecture.²⁸⁸

The painters, draughtsmen and photographers of the 1850s and 1860s placed within the wider Pre-Raphaelite movement recorded landscapes as they found them, in recognition of the fragility of the physical world, and awareness those same forces would continue to transform the very places they loved. Pre-Raphaelite landscape remained distinct from the illustration of scientific phenomena as they knew the actual landscape was the outcome of aeons of gradual change.²⁸⁹ Ideas of scientific truth and accuracy was part of the Pre-Raphaelite's repertoire with their careful method to document the same foreground of natural materials filling countless works. These are the detailed rocks and plants seen so close-up where works could be more aptly described as 'nature studies' than landscapes, as conventionally understood.²⁹⁰

The works by artists in the Pre-Raphaelite circle would reveal man's imprint and the impact of human activity on the landscape, generally concerned with the immediate physical environment in which men and women lived and worked. These painters considered land in terms of a common inheritance and approached a landscape as accessible and should be enjoyed by all. Because the artist himself penetrated the landscape, as a result the viewer is allowed to enter the landscape imaginatively, by identifying either with a figure whose presence in the landscape is either documented, or with one who may be assumed to be looking out over the landscape from a building or other logical vantage point. Such personal representations of the inhabited landscape

²⁸⁷Staley, et al., 19.

²⁸⁸Birmingham Museums and Art Gallery, et al., 38.

²⁸⁹Staley, et al., 143.

²⁹⁰Staley, et al., 29-30.

would survey an actual ecosystem, all which man had encroached on, and was perhaps also to destroy.²⁹¹

4.2. Industrial Development and Urbanization

The Pre-Raphaelite landscape does imply an industrial city as its unspoken other and the outer London suburbs, with their interpenetration of country and city, proves to be a fascinating subject. The 1850s would see physical changes in Britain's appearance one marked with a potent symbol of modernization, the railway system. Large-scale industrial development and urbanization of the working population would factor in an economic boom and as widely known, these changes caused damage to the environment. This would reflect on the countryside as appearing more valuable, especially to those opponents of industrialization such as Ruskin. The Pre-Raphaelite circle would have unprecedented freedom of movement to access pristine landscapes.²⁹²

The effects of modernity to the rural environment would come from the establishment with what would come to be known as 'high farming'. Capital investment would create significant changes to production with new agricultural methods and machinery, such as seed drills, mechanized reapers, and threshing machines, leading to a massive number of unemployed workers, and families deprived of their homes and livelihood. In country areas, men who were unwaged labourers mainly from farm work were obligated under the Poor Law system to break stones as a pauper to receive food and lodging from the parish. The society at large would view rural poverty and unemployment with concern and a threat to social equilibrium.²⁹³

The Pre-Raphaelites' paintings would go further in their active engagement with the everyday world or conventional ideology. These modern-life images were corrective responses to idealized labour laying bare the underlying beliefs of a society that shaped them with an applied gaze as campaigning works to reveal the emotional tragedy of emigration.²⁹⁴ Henry Wallis would provide a rare exposé of and an outraged critique of

²⁹¹Stanley, et al.,181.

²⁹²Barringer, 18-19.

²⁹³Staley, et al., 175-176.

²⁹⁴Barringer, 119.

labour in a modern society. In *The Stonebreaker* (see figure 6), a poor soul is set in a melancholy, deserted valley with no topographical references, a modern martyr to the cruel doctrine of utilitarianism of Victorian England. It is a heartfelt lament to the forgotten victims of the industrial age, its deep tones those of mourning.²⁹⁵ Wallis' work shows a vista of hills, woods and the surface of the lake seen at dusk, the fading light as an allusion of the passing of life. The intrinsic beauty of the landscape is no comfort to the figure 'labouring to conquer the earth for man'.²⁹⁶



Figure 6. The Stonebreaker, 1857. Henry Wallis (1830-1916)

Source: Wallis, Henry. *The Stonebreaker*. 1857. *Birmingham Museum and Art Gallery*, www.birminghammuseums.org.uk/birmingham-museum-and-art-gallery.

Pre-Raphaelites would engage with serious subjects, exploring contemporary issues with a social conscience. Driven by these ideals of honesty and truth, they often

²⁹⁵Birmingham Museums and Art Gallery, et al., 155.

²⁹⁶Staley, et al., 176.

used friends as models, posed figures to express sincere emotions rather than hollow, theatrical gestures; and painted settings direct from nature. They wanted their works to feel authentic and contemporary, for images to appear to be of real events featuring real people.²⁹⁷ In employing such a direct and present-tense impression of the effect to compress the continuum of time into an art of actuality, a frozen moment in a landscape in flux intensifies the experience of time and place.²⁹⁸

A series of Pre-Raphaelite landscape masterpieces featured prominently in alternative exhibition spaces would be difficult to sell given the works in question were such powerful expressions of the artists' single-minded search for truth to nature, a concept with a range of meanings, and challenged conventional mindsets. In the London art world, the Royal Academy was dominant as a teaching institution and as an exhibition forum. The Academy selection committees would frequently regard Pre-Raphaelite landscapes as objectionable as their studies in nature were seen as heretical. Pre-Raphaelite landscapes by its intensity of inspection of the forms of nature and had exposed earlier the impassionate and conventionality of older artists increasingly seen as a danger to academic *amour propre* for such a love of looking would be demanding to meet the rigours of Pre-Raphaelitism.²⁹⁹

In the mid-1860's if there was a fading sense of a shared purpose among progressive British landscape artists, the Pre-Raphaelitism legacy still had momentum and continued to adapt in different ways. The intensity and particularity of inspection would characterize the work of the 1860s as in the previous decade. All these modes of work would depend on careful inspection from hyper-real clarity to give way to an atmospheric murkiness, and frozen instantaneity exchanged with the effects of modernity slowly enveloping the landscape revealing a generation's obsession with the processes of optical observation.³⁰⁰

Their fascination with effect in later Victorian landscape painting would lead to a view, which emphasized nostalgia signaling a growing disaffection with the modern world, and many painters would avert their gaze from encroaching signs of urbanization

²⁹⁷Birmingham Museums and Art Gallery, et al., 108.

²⁹⁸Staley, et al., 209.

²⁹⁹Staley, et al., 215-216.

³⁰⁰Staley, et al., *Ibid.*

to open a dialogue between interior subjectivity and a perceived scene. Nature would become a metaphysical realm for the projection of emotion. The images of deserted gardens, marshes and bogs of Millais' late landscapes, and the stark horizontality of Brett's seascapes could thus be perceived as liminal spaces that traverse fact and feeling, and nature functioning as a response of the viewing subject. This shift could be read as a fulfillment to Ruskin's call to painters from imitation to a higher conception of nature³⁰¹, one of revering nature and its natural forms on human being.

It could also be viewed as a signal retreating from a unique moment in British art when science and painting had partnered in a genuine spirit of inquiry resulting in images that "demanded explanation and stretched our cognitive systems to their limits, exhilarating, and indeed, enfranchising the eye".³⁰² The Pre-Raphaelite view of the inhabited world, whether it was hopeful and taking delight in a landscape unimaginable to an earlier generation or more generally the case fearful of the intrusion of modernity, favoured dispassionate understatement and an avoidance of any suggestion of personal affinity with what was represented. Most of the artists with whom we are concerned were born and brought up in cities and towns, the majority in London, but others, in Newcastle, Birmingham, Liverpool, and elsewhere, and originated in the rising middle class with an intimate view into an age of unbridled progress.³⁰³

The Industrial Revolution had set the stage with it the first attempts to harvest and harness the planet's resources on a global level. It was just the beginning of an era where humanity saw the environment as an infinite supply line.³⁰⁴ Our modern world has been reduced to a mechanized existence, nature seen as an obstacle to be overcome and resources exploited, determined by culturally blind beliefs in how we interact with a living planet. Despite years of growing environmental concerns, we still hold the natural world essentially as a commodity, a raw resource consumed at our whims.³⁰⁵ In the rise of modern technology from the Industrial Age, the innovations hence have produced a new 'technological sublime' with see the ordering force of man, and the terrifying threat

³⁰¹Staley, et al., 20-21.

³⁰²Staley, et al., *Ibid.*

³⁰³Staley, et al., 180.

³⁰⁴Brown, 9.

³⁰⁵Wade Davis, "Water Notes," *Burtynsky: Water*, (New Orleans Museum of Art. Gottingen, Germany: Steidl, 2013) 24-25.

that lies at the heart of pure rationalism. The modern form of the sublime is more complex than mere technophobia.³⁰⁶

4.3. Manufactured Landscapes

At the turn of the 21st century, what do we see in our landscapes today? How does this image, *Oil Fields #22 Cold Lake Alberta Canada* (see figure 7), connect us to this visionary terrain, which opposes utopias of nature seen before in landscape art? Celebrated artist, Edward Burtynsky's atlas of dystopia exposes such illusions. The deceptions are made visible in the light of day. In this image, we see a pipeline, directing recovery from the oil sands of Alberta, Canada through a clearing in a forest. Its channel connected to a complex system follows the contours of the woods, and only on second glance do we realize the tree line has been re-shaped, altered by the placement of the pipeline. Honouring the extraordinary effort that brings energy to the surface and the mechanisms of our world of oil, nature bends to our will.³⁰⁷

³⁰⁶Roth, 169.

³⁰⁷Roth, 168.



**Figure 7. Oil Fields #22, Cold Lake Production Project, Alberta Canada, 2001.
Edward Burtynsky (1955 -)**

Photo(s): Used with permission of Edward Burtynsky Photography. © Edward Burtynsky, courtesy Nicholas Metivier Gallery, Toronto.

In *Manufactured Landscapes*, Burtynsky has focused on sites of the industrial world altered by human activity with those impacts vividly etched onto the natural scene such as railroads, quarries, mines, recycling plants, oil refineries, ship-breaking yards. Consider this image, *Nickel Tailings #34, Sudbury, Ontario* (see figure 8) from Burtynsky's "Mines and Tailings," a series devoted to the environmental aftermath of metal mining and smelting. We are drawn by the mood set under a cool, grey sky, against a wintry violet backdrop of distant trees. A brilliant orange river swerves towards us from within a deep brown landscape. It leaves us to experience the shock of seeing a

bright orange stream flowing through a leafless landscape, and our cognitive dissonance in processing this information of what is aesthetically beautiful.³⁰⁸



**Figure 8. Nickel Tailings #34, Sudbury, Ontario, 1996.
Edward Burtynsky (1955 -)**

Photo(s): Used with permission of Edward Burtynsky Photography. © Edward Burtynsky, courtesy Nicholas Metivier Gallery, Toronto.

Aesthetics and conscience collide in photography as nowhere else in contemporary art. Our enjoyment really depends on our not thinking too hard about a bright orange river as a chemical and ecological reality.³⁰⁹ The startling colours are in actual fact, the intense reds and oranges caused by oxidation of the iron that is left behind in the process of separating nickel and other metals from the ore.³¹⁰ Burtynsky documents landscapes that, ‘whether you think of them as beautiful or monstrous, or as

³⁰⁸Kenneth Baker, “Form versus Portent: Edward Burtynsky’s Endangered Landscapes,” *Manufactured Landscapes: The Photographs of Edward Burtynsky*, (Ottawa: National Gallery of Canada in association with Yale University Press, 2003) 40.

³⁰⁹Baker, *Ibid.*

³¹⁰Lori Pauli, “Seeing the Big Picture,” *Manufactured Landscapes: The Photographs of Edward Burtynsky*, (Ottawa: National Gallery of Canada in association with Yale University Press, 2003) 21.

some strange combination of the two, are clearly not vistas of an inexhaustible, sustainable world.³¹¹ Burtynsky reflects on the currency of today's genre:

I began by photographing the 'pristine' landscape, but I felt that I was born a hundred years too late to be searching for the sublime in nature. To me, pursuing this would have been an expression of nostalgia. [...] I decided that what was relevant for our times were pictures that showed how we have changed the landscape in significant ways in the pursuit of progress.³¹²

The critic John Bentley Mays associated Burtynsky's photographs with that of the 'industrial landscape sublime'. A kind of image reflective of Europe, especially 18th century Britain. Philippe Jacques de Loutherbourg's (1740-1812) masterpiece, *View of Coalbrookdale by Night* (see figure 9) of industrial buildings and their chimneys extending out in an eerie silhouette, against clouds of smoke coloured pink-red by the glare of the ironworks. The glow is bright enough to light the path of the horses hauling loads through the night, and to see labourers beside the functionally designed furnaces. A full moon is immaterial in the round-the clock glare of a new steam-driven industry.³¹³

³¹¹Vancouver Art Gallery, *A Terrible Beauty: Edward Burtynsky, March 1, 2014 to May 26, 2014*, Retrieved 18-October-2018, <https://www.vanartgallery.bc.ca/exhibitions/a-terrible-beauty-edward-burtynsky>.

³¹²Michael Torosian, "The Essential Element: An Interview with Edward Burtynsky," *Manufactured Landscapes: The Photographs of Edward Burtynsky*. (Ottawa: National Gallery of Canada in association with Yale University Press, 2003) 47.

³¹³Haworth-Booth, 34-35.



**Figure 9. View of Coalbrookdale by Night, 1801.
Philippe Jacques de Loutherbourg (1740-1812)**

Source: de Loutherbourg, Phillippe Jacques. *View of Coalbrookdale by Night*. 1801. *Science Museum*, www.collection.sciencemuseumgroup.org.uk/objects/co65204/coalbrookdale-by-night-oil-painting.

By the end of the 18th century, the steam engine, invented originally for limited industrial use, would become a universal motor set to transform the whole economy. The technique of ironmaking, perfected in rural Coalbrookdale, had revolutionized the industry surrounded by romantic scenery.³¹⁴ De Loutherbourg invented the 'industrial sublime'. His cultural ideas and images handed to later artists and viewers. A monstrous glow, recalling of the toxic flowing river in Burtynsky's "Tailings" series, is both appalling and enthralling.³¹⁵

Many scholars have pointed out how our experience of humanity's impact has been primarily visual and sensory. Imagery is regularly employed to give visual form to a range of phenomena such as melting ice caps, the effects of rising water levels on cities, and areas of deforestation. The use of photography combines a potent mix of

³¹⁴Francis D. Klingender, *Art and the Industrial Revolution*, edited and revised by Arthur Elton, (Chatham: Winifred Klingender and Evelyn, Adams & Mackay Ltd. 1968) 7-9.

³¹⁵Haworth-Booth, *Ibid*.

abstraction and information to move from the unfamiliar to the familiar, slowing a viewer down to absorb and then recognize what's presented. The view from above is one predominant way to relay these changes.³¹⁶

An aesthetic impact of the aerial view has proven a useful tool, particularly with respect to the environmental movement. Nancy Newhall would brand the advent of Lakewood, California, which William A. Garnett had documented the community's construction process between 1950 and 1954 (see figure 10), as 'the hell we are creating here on earth.' In 1952, E. A. Gutkind published *Our World from the Air* an international collection of aerial views, mainly of the built environment. Lewis Mumford provided the book's introduction, declaring a dismal trajectory:

The earth as we know it holds both a promise of heaven and a threat of hell. If we are heedless of our environment and of human needs, the processes now at work will doom our whole planet to destruction – slow destruction through the removal of the forest cover, the erosion of the soil, the lowering of the water table, the over-exploitation of the land [...] ³¹⁷

It was support for improving the lot of humankind to see the connections to our environment, and a fundamental change from a planned suburbia.³¹⁸

The impulse to try and see ourselves in the world, apart from ourselves, a paradox in itself, is mainly evident in the history of mapping. Long before the possibilities of flight and of photography, humans created flattened, overhead views of their surroundings. With the advent of photography in 1839, photographers would frequently document new bridges, railroads, buildings, monuments, and city skylines – all tributes to human ingenuity and revealed the growing colonial and commercial networks.³¹⁹

³¹⁶Hackett, 16.

³¹⁷Hackett, 20.

³¹⁸Hackett, *Ibid.*

³¹⁹Hackett, 16.



**Figure 10. Grid and sprawl. Lakewood Park, February 18, 1952.
W. A. Garnett (1916-2006)**

Source: Waldie, D. J. "Beautiful and Terrible: Aeriality and the Image of Suburbia." *Places Journal*, February 2013. Accessed 29 May 2019. <https://doi.org/10.22269/130204>.

This way of seeing grows out of a long history, beginning by seeking out elevated vantage points and later creating views from the air, from various aircraft, spacecraft, and now also drones.³²⁰ Another modern artist closer to a sense of place envelopes technology and takes a 'view from above' to new aesthetic heights. Georgia O'Keeffe (1887-1986) wrote of her experience in flight from Albuquerque to New York:

It is breathtaking as one rises up over the world [...] and looks down at it stretching away and away. [...] rivers – ridges – washes – roads – water holes – wet and dry [...] The world all simplified and beautiful and clear-cut in patterns [...].³²¹

This observation encouraged O'Keeffe to interpret the shapes and forms she had seen from above and express the remembered event in colours, as seen in *It was Blue and Green* (see figure 11). The work depicts meandering curves of varying widths that do not suggest depth or perspective. Her interest would remain with the colours and forms suggested by the aerial view of the landscape. O'Keeffe continued to pursue this vision and created some of her most sublime and abstract works inspired from the natural world.³²²

³²⁰Hackett, *Ibid.*

³²¹Maria Chabot - *Georgia O'Keeffe: Correspondence, 1941-1949*, Edited by Barbara Buhler Lynes and Ann Paden, Georgia O'Keeffe Museum Research Centre, (Santa Fe: University of New Mexico Press, 2003) 12.

³²²Richard D. Marshall, *Georgia O'Keeffe: Nature and Abstraction*, *Irish Museum of Modern Art and Vancouver Art Gallery*, (Milano, Italy: Skira, 2007) 18.



Figure 11. It Was Blue and Green, 1960. Georgia O'Keeffe (1887-1986)
Source: Marshall, 169.

A related series of paintings was provoked by O'Keeffe's first experience of flying above the earth in the late 1950s. Her aerial perspective allowed a new reading of the landscape as seen from above, emphasizing the flatness, light and dark, and the curved shapes of rivers:

I once spent three and half months flying around the world. I was surprised that there were so many desert areas with large riverbeds running through them ... Later I made paintings from charcoal drawings. The colors used for my paintings had little to do with what I had seen - the color grew as I painted.³²³

As O'Keeffe grew to know a place through seriality, it demonstrates O'Keeffe's formal and chromatic innovation, and her synthesis of the lines and shapes she saw in nature convey the very essence of a location. O'Keeffe used an astonishing economy of means, employing radical simplification and a restrained palette to convey the essential

³²³Marshall, *Ibid.*

curvilinear forms.³²⁴ It also reveals O’Keeffe’s affinity for framing, cropping and the techniques of modern photography in her abstract expressionist works.

An abstracted, painted landscape of the area’s water systems shows the Colorado River and to the 21st century using digital technology: what do we see? Burtynsky’s aerial photograph of the *Colorado River Delta #2, Near San Felipe, Baja, Mexico* (see figure 12) reveals these once vital wetlands have turned to desert. It features the Colorado river where the estuary has now run dry, leaving behind stunning patterns in the landscape and producing a play of colours and lines similar to an abstract image.³²⁵ On Burtynsky’s view on the element of water, “I realized water, unlike oil, is not optional. Without it we perish.” The image compelling, crisp, finely detailed is a view away from the earth to view human systems used to redirect and control water, and is one of the most poetic, abstract work of Burtynsky’s oeuvre.³²⁶

For the entire American Southwest, the Colorado River has always been a gathering place and a muse of poets and songwriters, river guides, shamans, medicine women, eco-warriors, engineers, dam builders, and the reservoir of every farmer from the Grand Valley of Colorado to the Imperial Valley of California. Today, we see an altered landscape compromised of two dozen dams, quenched dry to grow alfalfa in the desert, all to support but 10 percent of the nation’s cattle production. It enters the Gulf of California a river only in name, a shadow of its former self, its delta dry and deserted, its patterned flow a toxic trickle seeping into the sea.³²⁷

³²⁴Hannah Johnston, *Tate Introductions: O’Keeffe*, (London: Tate Publishing, 2016) 23.

³²⁵Edward Burtynsky, <https://www.edwardburtynsky.com/events/2017/03/23/water>. Retrieved 4 June 2019.

³²⁶Edward Burtynsky, “Artist Statement,” *Burtynsky: Water*. New Orleans Museum of Art. (Germany: Steidl, 2013) 9.

³²⁷Davis, 22.



**Figure 12. Colorado River Delta #2, Near San Felipe, Baja, Mexico, 2011.
Edward Burtynsky (1955 -)**

Photo(s): Used with permission of Edward Burtynsky Photography. © Edward Burtynsky, courtesy Nicholas Metivier Gallery, Toronto.

Human beings are natural story tellers, and our shared stories are what binds societies and distinguishes one culture from another. Every society conjures its myths and legends, and its grand cultural narrative. As norms and beliefs are constructed, its largely determined how one acts out one's existence with others and the natural environment. Since the 1950s, the governing elite of the market democracies have charmed and cajoled nearly the entire world to adopt a common economic myth of uncommon destructive power. Industrial capitalism, still sweeping the world, compels unconstrained expansion and accumulation. We have become the myth.³²⁸

In the mythology of BC modernism, the colonial vision of concealing the realities of the outlying regions was shattered by Emily Carr (1871-1945), who particularly, in her

³²⁸William Rees, "Degradation and the Arrow of Time", *Burtynsky: Oil*, Corcoran Gallery of Art, Washington, DC, (Germany: Steidl, 2009) 195.

later period, penetrates appearances and for the first time feels the landscape. *Above the Gravel Pit* (Figure 13) shows the expressive dimension in Carr's work and her skyward gaze. Under a swirling blue and purple sky, stumps, and low trees stand on a pillaged landscape with a wall of forest in the distant background. This response to the landscape in front of her can be read in this image as evidence of the world around her. Carr is rooted in a society founded on the alienation from nature as a precondition for its exploitation.³²⁹



Figure 13. Above the Gravel Pit, 1937. Emily Carr (1871-1945)

Source: Used with permission of the Vancouver Art Gallery. Collection of the Vancouver Art Gallery, Emily Carr Trust, VAG 42.3.30.

Carr shows the ravages of logging, the mood not one of despair, but of renewal and regeneration with the gloriously lit sky acting as a spiritual presence.³³⁰ Carr finds movement in nature and translates this into a concept of energy that belongs to the elements of nature itself: the power of the wind, the intensity of the sun, and the thrust of growth, and so on. The forms of nature are still and the life-force in the atmosphere

³²⁹Beyond Wilderness: The Group of Seven, Canadian Identity, and Contemporary Art, edited by John O'Brian and Peter White, (Montreal: McGill-Queen's University Press, 2007) 319.

³³⁰Emily Carr. *Above the Gravel Pit* (1937) Collection of the Vancouver Art Gallery. Retrieved 4 June 2019.

vibrates, moves and shimmers.³³¹ Carr's aesthetic view of nature and the environment is similar to Burtynsky by showing those places normally outside our experience, but as a part of our everyday lives it can add to our understanding of who we are and what we are doing.³³²

Burtynsky sought out those interesting places and moments to embody a poetic narrative of the transfigured landscape, the industrial supply line and what that means in our life.³³³ In the diptych, *Carrara Marble Quarries # 24 & 25* (see figure 14), the creamy, flawless marble makes a perfect white ground for the machines, cables and tools of the quarryman's trade. The mechanical system along the quarry floor for block cutting with such precision, it's as if they're cutting cake.³³⁴ Inverting the space, an architectural landscape reveals the profound revelation of centuries of quarrying, who it employs, what the materials are used for from a living, active site.



**Figure 14. Carrara Marble Quarries #24 & #25, Carrara Italy, 1993.
Edward Burtynsky (1955 -)**

Photo(s): Used with permission of Edward Burtynsky Photography. © Edward Burtynsky, courtesy Nicholas Metivier Gallery, Toronto.

The quarry series looks at what remains after man is finished with something and walks away, leaving to nature the job of slowly pulling the abandoned object back into the ground. Burtynsky would refer to this as the 'residual thing' as our marks on the land

³³¹Doris Shadbolt, *The Art of Emily Carr*, (North Vancouver, BC: Douglas & McIntyre Limited, 1979) 122-124.

³³²Edward Burtynsky, "Artist Statement", Burtynsky, Edward, editor. *Edward Burtynsky, Quarries*, Steidl, (2007) 9.

³³³Burtynsky, *Quarries*, Ibid.

³³⁴Burtynsky, *Quarries*, 21.

and from a more global perspective.³³⁵ In dimensional quarries, the material is drawn out in a certain pattern, with a certain order. The rock face has been imprinted with our methodologies, our desire, our need and reflects something about ourselves. Our presence made insignificant by the spaces we've created is a curious metaphor for how technology seems larger than life, larger than our own lives.³³⁶

Our techno-industrial society has pledged allegiance to the myth of perpetual growth. The sustainability countdown clearly poses the ultimate challenge to human intelligence and self-awareness, which are vital qualities we humans claim as uniquely our own. Burtynsky's art does portray the darkest consequences of heedless denial. The emotional impact of his works may well do more to shift minds than scientific models. It has come to pass, the combination of art and science whether it is enough to force necessary action.³³⁷

Photography isn't merely subjectivity, but subjectivity masquerading as objectivity. The critic Alexander Cockburn holds to this view as part of a general indictment of photojournalism. Rather, it is the creation of a world, one where there is no single truth and no single world. The responsible image is one that makes refusal necessary, unavoidable, unrelenting and can serve no other purpose than being. The moral issue is more central to Burtynsky's work and the environmental interventions to document truths at specific industrial sites, economies such as China, to networks of production and use to reveal a structure of a technical world. How can we see the social or political truth of the image when we drawn to it primarily by its aesthetic power, its beauty? "The truth of images is the truth of time, of its presence, and its inescapability."³³⁸

The camera bears witness to realities in which technology has inadvertently created sublime landscapes. Our revulsion or amazement is tied to 'art of a world we see'.³³⁹ The works of art, which have any value, are those that are like nature in conveying the pulsations of a not wholly conscious life. Any work of art, which is fully

³³⁵Michael Mitchell, "More Urgent than Beauty," *Edward Burtynsky, Quarries*, (Steidl, 2007) 15.

³³⁶Burtynsky, *Quarries*, Ibid.

³³⁷Rees, 199.

³³⁸Mark Kingwell, "The Truth in Photographs: Edward Burtynsky's Revelation of Excess," Burtynsky, Edward, and Marc Mayer, editors. *China: The Photographs*. (Germany: Steidl, 2005) 16-19.

³³⁹Baker, 42.

self-conscious, is a kind of photograph. Life in a work of art is analogous with what we admire in nature, namely a kind of power, force, energy, life, vitality bursting forth.³⁴⁰

³⁴⁰Berlin and Hardy, 113-114.

Conclusion

Capitalism has survived its various crises and now organizes the entire globe in a fantastic web of connections with contradictory consequences. Manufacturing flows out of the advanced countries to the low wage periphery as diseases flow in. The Internet opens fantastic opportunities for human communication and is inundated with commercialism. Human rights prove a challenge to regressive customs in some countries while providing alibis for new imperialist ventures in others. Environmental awareness has never been greater, yet nothing much is done to address the looming disasters of global warming. Nuclear proliferation is finally fought with energy in a world in which more and more countries have good reasons for acquiring nuclear weapons. Building an integrated and unified picture of our world has become far more difficult as technological advances break down the barriers between spheres of activity to which the division between disciplines corresponds.³⁴¹

Feenberg expresses a belief made possible through the stance of a critical theory of technology as an approach for reconciling the seemingly many conflicting strands of technology. The global contexts such as we find ourselves with today's interconnected and complex world, shaped by technological advances has created a borderless existence. In examining technology as a life environment, this gives rise to interpreting the world in light of its potentialities. The importance of opening perspectives on the future and generating capacities to empower human beings to develop their capabilities to the fullest and to pursue their idea of the good life.³⁴²

I see a familiar refrain of a view orchestrated from above to survey a world, whether that be natural perches in nature, a constructed land of imperialism, or taking flights across the globe; when we look more closely, we see the marks of humankind and how we have separated ourselves from nature. Our literary and visual images show a fractured world holding our gaze long enough to slow us down, to think, and to reflect on what the environmental impacts are of a modernity coupled with human and economic development. And, if given time and space, the regenerative aspects of nature in an inhabited world would be a form of planetary gardening and grounds for hope.

Technology offers hope in having alternatives, in lessening our reliance on non-renewable energy and allowing far better efficiencies and use of the planet's precious

³⁴¹Feenberg, *Replies to Critics*, 207-208.

³⁴²Feenberg, *Replies to Critics*, 208.

resources such as metals from the earth, timber from forests, or water from rivers. Advancements in IT are allowing farmers to mature crops with less water and fewer chemicals, keeping our rivers filled and less polluted. While we've altered our behaviours in doing more with less, technology alone will not deliver our salvation. Unchecked consumption in an affluent world has interacted with population growth and that remains the greatest threats to nature.³⁴³

Economic growth and development have exacerbated environmental problems. New technologies and information made available to developing societies with resources can help to manage environmental stresses. For champions of globalization, this idea furthers the process of integration and co-operation as well as common environmental norms and standards, which enhances the capacity for a system of sovereign states to manage issues such as ozone depletion and climate change.³⁴⁴ Although, a voluntary international treaty on climate change with mandatory compliance mechanisms exists, a global effort to be successful requires the use of carbon tariffs to change incentives for some countries to free-ride on the efforts of others. Changing capitalism won't change the tendency of self-interested bias of citizens and national governments.³⁴⁵

Nature has become a malleable device. Albert Borgmann argues that reality is giving way to a kind of reality that is detached from direct experience and context. Commodifying nature has been the result of distancing and treatment of nature through an endless loop projected upon by cultural institutions and understood through the many narratives by its denizens and societies. When the grounding of our beliefs and practices about nature shifts with the rapidly changing landscape, what Borgmann terms *hyperreality*, the power of nature to hold moral and spiritual beliefs weakens from an essential nature to a constructed nature. Our inability to engage authentically with things, also means we may lose sight of moral commitments to those things reflected in our images, and images also lack stability and resonance.³⁴⁶

Materialism brings us to see nature as an 'appropriation,' regardless of how human, it remains a domination of a living object by a subject. Nature's relation to man's

³⁴³Alastair Fothergill, et al. *Our Planet*, First American edition, (Ten Speed Press, an imprint of the Crown Publishing Group, a division of Penguin Random House LLC, 2019) 307.

³⁴⁴Ferguson and Mansbach, 285.

³⁴⁵Jaccard, 235-236.

³⁴⁶Higgs, 201-202.

plundering is one of struggle, and the struggle may also subside to clear an opening for peace, tranquility and fulfillment. It's not about the appropriation of nature, but rather it's the negation of a nonexploitive empathy for a surrendering, 'letting-be', of a truce met with nature as a manifestation of its essential limit.³⁴⁷

A historical idea of landscapes has shown us nature is a universe with potentialities. Man's freedom is tied to recognizing truth in things, in nature. Human action against nature in the forms of exploitation and domination conveys object values and our relationship with nature runs contrary to nature being a necessary part of a fulfilling human life. A liberation for man is having his own humane faculties linked to a liberation of nature where truth is attributable to nature not only in a scientific but also in an existential sense, and integrated into a world of 'higher culture'.³⁴⁸

Ideally, "art is powerful enough to cross cultures; it reads the code of human nature." In exploring a world, special events imagined from the intensity of an artistic impulse and a transference of feeling draws from a subconscious source of primal stories and images as revealed in the forms of knowledge with universal effect.³⁴⁹ Culture speaks to this ennobling effect of a better world, a not furthered by a materialistic order of life but through life events of an interior world of an individual's psyche. The values of freedom, goodness and beauty become spiritual qualities and an understanding for humanity is expressed in forms of higher existence for the dignity of man and of beauty being an inner beauty. Humanity has become an inner state from the contemplation of the arts of a world to garner selfhood and as a source of action.³⁵⁰

Nature finds its place in the theory of revolution. An aesthetic form in art has the aesthetic form in nature as its connection, and of necessity. The idea of the liberation of nature is its susceptibility to forces, which could support and enhance the liberation of man. This force of nature may be called 'chance' or 'blind freedom,' and may give good reason to the human effort to redeem this blindness.³⁵¹ The aesthetic dimension does retain an imaginative space to ennoble the writer and artist to reveal truths, at times hard

³⁴⁷Marcuse, *Nature and Revolution* (1972), 240-242.

³⁴⁸Marcuse, *Nature and Revolution* (1972), Ibid.

³⁴⁹Wilson, *Biophilia*, 62.

³⁵⁰Herbert Marcuse, "The Affirmative Character of Culture (1937)". Marcuse, Herbert, et al. *The Essential Marcuse: Selected Writings of Philosopher and Social Critic Herbert Marcuse*. (Beacon Press, 2007) 213-214.

³⁵¹Marcuse, *Nature and Revolution* (1972), 238-239.

truths as to what men and things really are, and to call out unwelcomed truths to name the unnameable. This romantic space has been narrowed as our society has forced the imagination to prove itself on new grounds translating images as historical forces and projects, on which we see are not of places of a separated realm of production and beauty revealed as terror as an ecological portrait of our networked existence.³⁵²

The project of sustainable global development has been about those with more, who are more affluent to adopt lifestyles within the planet's ecological means in their use of energy. In the end, sustainable development is dynamic, "a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development, and institutional change are made consistent with future as well as present needs." Any new era of economic growth is energy intensive. While some energy sources are controversial such as nuclear energy, energy efficiency can only buy time for the world to develop 'low-energy paths' based on renewable sources, to form the basis of the global energy structure during the twenty-first century.³⁵³

Our Common Future concluded the overarching strategy that the world needed to adopt in the United Nations should promote sustainable development. Sustainable development is the original term, and the connotation was human progress on the planet can continue. Cooney's experience is, "[i]t's not just in less developed regions, it's a social and political challenge in Canada too. The United States, which is resistant to the concept of sustainable development has been a hard sell." Sustainable development describes a process, which requires continuing effort put into maintaining advances and continuing progress. Sustainability describes more of an outcome than a process, although, sustainability has become the more preferred term by all the NGOs.³⁵⁴

Hansen adds, "now, when we say sustainable that also means can we define what sustainability might look like in today's context, we might be looking at something totally different in thirty years from now." The relationship is between sustainability and technology in our consumer society and the economic activity to generate economic well-being. "Technology is leading us to increased and not diminished sustainability ...

³⁵²Marcuse, *One-Dimensional Man*, 247-249.

³⁵³World Commission on Environment and Development, editor, *Our Common Future*, (Oxford University Press, 1987) 9, 14-15.

³⁵⁴Cooney, *Ibid.*

within the dynamic changes in technology, new innovation, and artificial intelligence will get us to a sustainable society much faster.”³⁵⁵

In our understanding of ecosystems as dynamic, it is impossible to have perfect knowledge of pre-disturbance conditions and restoration would correspondingly require designs to be aligned to specific goals, rather than an exact replication as compared to the restoration of a work of art). Restoration has us confront its limitations and takes us to the turn of the nineteenth century, when palaeoecological evidence suggests slightly different climatic conditions, the challenge of fixing a historical epoch for a system in motion. The outcome would be as random as leaving the system alone. Human interventions in ecological processes and patterns, under the banner of ecological integrity, introduces another layer of human intervention of how nature is managed and often reshaped in our image.³⁵⁶

A biocentric vision of mankind where man does not belong at the top of the hierarchy is an unusual and powerful idea. For the few philosophers and environmentalists interested in such a Copernican shift, this alternative path called, ‘deep ecology’ as opposed to ‘shallow ecology’ which looks to being better stewards. Whereas deep ecologists have us question the industrial basis of our civilization, our why we need to constantly grow in wealth and numbers, and the entire way we live with nature. It’s a radical notion to transform a way of life to forgo our desire for endless material advancement in favour of ‘doing with enough’. Possibly, we might all start to use the ‘appropriate technology’ of ‘sustainable development’ which we urge on Third World peasants as our solutions.³⁵⁷

A humbler world may be difficult to describe, yet, we have planned utopias, worlds engineered for human happiness. There is something different, an “atopia,” centred on the integrity of the planet and not our desires. Living simply is subversive, such a change would be extremely difficult, as individuals would have to change habits in driving less and limiting carbon emissions means cutting deeply into the global energy use, and limits economic growth and condemns the poor, especially in developing

³⁵⁵Hansen, *Ibid.*

³⁵⁶Higgs, 198-199.

³⁵⁷Bill McKibben, “Reflections: The End of Nature,” David Remnick and Henry Finder, editors, *The Fragile Earth: Writing from the New Yorker on Climate Change*, (First edition, Ecco, 2020) 55-56.

countries to continued poverty. These are arguments effectively stalling action of any kind of change if there was resistance to take such action in the first place.³⁵⁸

What we see of our vistas today are extensions of commodification, cyclical distortions, and disruptions in structural systems that we as humans have designed, constructed, and continue to exploit Nature. The earth as we know it calls upon us to perennially adapt as the process of sustainable development becomes the norm. In effect, an aesthetics of nature has 'empathy' for social inequity and wealth disparity to an utopian perspective to see things in the neutral zone of an 'in-between state', or a 'third way' that pauses the madness of doing the same things and expecting a different outcome.

In the realm of art, a visual culture inserts itself into our daily lives and constitutes a conscious pursuit of what alienating nature has been represented in the arts, to take a step back in time to view our traditions pushed aside and the simple, back to the land view where we honour the earth versus dominating the natural cycles of the earth. The amplification of climate change is due to self-interest, greed of the elites and corporations to distract us by sheer aesthetic-mindedness. It challenges us with a deep ecological aesthetic of 'who we are and what we are doing', showing places that are outside our experience, and yet very much a part of our everyday lives.

In contemporary society for a form of life whether it be a capitalist or communist system are interdependently linked conflicting between progress and politics. A capitalist society retains a general interest to align to vested interests and the need to preserve labour as a source of profit and thus, marginalizes and perpetuates inhuman existence at the foot of the social pyramid. In a communist society, the legacy of terror perpetuates the oppressive feature to catch up with and surpass the triumphs of capitalism where the means justify the ends as a priority, which provides for spectacular comforts, liberties, and lessens the burden of life. Both capitalism and communism have these capabilities distorted beyond recognition and a struggle against a form of life would dissolve the basis for domination.³⁵⁹

³⁵⁸McKibben, 56-57.

³⁵⁹Marcuse, *One-Dimensional Man*, 53-56.

Our terror abides the fear of the unknown and the unpredictability of life, all of which creates an anxiety, and a way forward with an awakened consciousness to make informed choices, in a global sense. The target of holding to an increase of 1.5 Celsius as noted by the IPCC highlights the need for climate resilient development, and “any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all”.³⁶⁰ It’s in leveraging technology as a citizen of planet earth that demands a different way of valuing markets and in democratizing information, where institutions that have oversight are held to the highest levels to the ‘duty of care’. To that end, machine learning and artificial intelligence can help with sorting through mountains of data and with the power of the narrative and imagery to visualize possible futures.

Our choices have been narrowed, do we choose extinction or flourishing? The ethic of ‘do no harm’ is a shared necessity of a global world in every networked system imaginable. There are many things becoming visible that are now unimaginable, such climate impacts being revealed in catastrophic floods, heat domes, wildfires in our own backyard. These visceral images hitting closer to home shake us, wake us up, and ‘no more’ is the rallying cry! We must see ourselves in a virtuous cycle that honours the cycles of nature, our resiliency prevails in adapting our garden on this planet is an exit out of our existential dilemma to heed inconvenient truths, and revere Nature’s wealth.

³⁶⁰IPCC, “Climate Change 2022: Impacts, Adaptability and Vulnerability,” Retrieved 1 March 2022, <https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/>.

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