

THE DARK ECOLOGY OF WILLIAM GIBSON'S *NEUROMANCER*: TECHNOLOGY,  
OBJECT-ORIENTED ONTOLOGY, AND THE DAWNING OF ENTANGLEMENT

by

JADE HAGAN

B.A., Tulane University, 2010

A thesis submitted to the  
Faculty of the Graduate School of the  
University of Colorado in partial fulfillment  
of the requirement for the degree of  
Master of Arts  
Comparative Literature Graduate Program  
2013

This thesis entitled:  
The Dark Ecology of William Gibson's *Neuromancer*: Technology, Object-Oriented Ontology  
and the Dawning of Entanglement  
written by Jade Hagan  
has been approved for the Comparative Literature Graduate Program

---

Helmut Müller-Sievers

---

Christopher Braider

---

Karen Jacobs

Date \_\_\_\_\_

The final copy of this thesis has been examined by the signatories, and we  
Find that both the content and the form meet acceptable presentation standards  
Of scholarly work in the above mentioned discipline.

Hagan, Jade (M.A., Comparative Literature)

The Dark Ecology of William Gibson's *Neuromancer*: Technology, Object-Oriented

Ontology, and the Dawning of Entanglement

Thesis directed by Professor Helmut Müller-Sievers

As titles such as *The End of Nature*, “The Death of Environmentalism,” *Ecology without Nature*, and *The Death of Nature* evince, in recent years the validity of a socially constructed Nature, as separate from culture, has been extensively problematized. Paradoxically, the dilemma posed by the nature/culture opposition stems largely from environmentalist movements that locate Nature outside of the human sphere. In contrast to this mainstream division, science fiction author William Gibson's novel *Neuromancer* depicts its human characters as inextricably linked to their environment, albeit through their recognition of their creation of a new world order—one in which waste, pollution, and technology are inescapable. These characters' cohabitation with the intentional objects of their surroundings thus symbolizes an *ecological* worldview.

At the intersection of the call for an end to Nature and the dawning recognition of ecological entanglement, a new strain of philosophy, *object-oriented ontology* (OOO), stands to address humanity's urgent need for an engagement with the world around it. Defining all entities as objects with withdrawn qualities, OOO proffers a method for attending to the ways that objects (inter)act, free of presuppositions to totalized knowledge. Accordingly, OOO places all beings on equal ontological footing. Apart from its rejection of anthropocentrism, this nonhierarchical approach to being calls into question an exclusionary concept of nature, as well as the perception that nature exists in specific places, namely those untouched by humans.

Through an OOO reading of the objects in *Neuromancer*, the representation of information technology, and in particular cyberspace, is rendered comparable to the sort of globalized ecology that seems preferable to current environmentalisms. Through the novel's portrayal of technoculture's boundless connectivity, conflation of Artificial Intelligences and humans, and the character's necessarily incomplete knowledge, *Neuromancer* explores the ramifications of the entanglement of human, technological, and environmental objects. At the same time, it challenges conventional ecocriticism, which tends to privilege an aestheticized redemptive Nature, through its radically inclusive understanding of ecology. Accordingly, *Neuromancer* divulges its critical potential through a reinscription of nature that accounts for the coexistence of all things.

## CONTENTS

### PART

I. Introduction.....	1
II. No More Shakespeare After Chernobyl.....	7
III. The Dark Ecology of Objects.....	19
IV. Neuromancer: A Technological Ecology.....	30
V. No Time-outs, No Transcendence.....	48
BIBLIOGRAPHY.....	53

**Part I.**  
***Introduction***

*The opposite of nature is impossible.* –Buckminster Fuller

The death knell has sounded for the concept of Nature<sup>1</sup>. Titles such as *The End of Nature*, “The Death of Environmentalism,” *Ecology without Nature*, and *The Death of Nature* are just a sampling of publications that evince this verdict. Bruno Latour summarizes the consensus of these works when he writes, “*under the pretext of protecting nature, the ecology movements have also retained the conception of nature that makes their political struggle hopeless*” (19). Indeed, environmental platforms have historically clung to stilted notions of Nature that ultimately reinforce the detachment that they strive to abolish. Furthermore, ecocritics have been hard-pressed to present a coherent critique, when “the whole field of ecocriticism is fraught with ontological anxiety,” for, “to ask what *is* nature is, in essence, to ask what *is is?*” (Claborn 377). Cultural historian and theorist Raymond Williams has described the futility of delineating “nature”:

Nature is perhaps the most complex word in the language. It is relatively easy to distinguish three areas of meaning: (i) the essential quality and character *of* something; (ii) the inherent force which directs either the world or human beings or both; (iii) the material world itself, taken as including or not including human beings. Yet it is evident that within (ii) and (iii), though the area of reference is broadly clear, precise meanings are variable and at times even opposed. The historical development through these three senses is important, but it is also significant that all three senses, and the main variations and alternatives within the two most difficult of them, are still active and widespread in

---

<sup>1</sup> I capitalize Nature to emphasize the social construction of the term.

contemporary usage. (219)

Indeed, an inverse ratio of certainty exists between nature (iii) and Nature (ii); nature seems to be comprised of specific entities while Nature conveys a whole greater than its parts. Both forms seem to exist elsewhere, as objects of our contemplation. In a radical departure from these prevailing views of nature, philosopher Graham Harman proclaims, “nature is not natural and can never be naturalized, even when human beings are far from the scene. Nature is unnatural, if the world ‘nature’ is supposed to describe the status of extant slabs of inert matter” (*Guerrilla* 251). Thus, at its core, the dismissal of Nature is a rejection of a concept of the natural. As Timothy Morton declares, “there are coral reefs and bunnies, but no Nature” (“Here Comes” 178).

Similarly, when science fiction author William Gibson proclaims, “The future is here. It’s just not very evenly distributed,” (Gladstone) he, too, refutes the illusion of a totalized Nature, in two distinct ways. First, he understands that different modes of existence, different time scales, comprise reality at any given time. Thus, the variable between these modes of existence is time, not space. In an age of global warming and ecological crises, then, it is only a matter of time until our future *is* “evenly distributed.” The second implication of this notion is that, ultimately, nothing is entirely separate from the rest. The realization that matter does not disappear, but only changes form, has long been accepted in the form of the First Law of Thermodynamics. However, the concept of Nature devised by modern Western societies tends to suggest that there is an outside to Nature, a place where one is unaffected by human activity. Furthermore, this idea of Nature as somehow distinct from humans characterizes environmentalist movements, which continually stress the need to protect *particular* places, as if these places were not continuous with the rest of the biosphere. Thus, Gibson’s affirmation stands in contrast to current

environmentalisms, as it conveys an *ecological* impression of the continuity of all things, and by extension, a radically inclusive nature.

In fact, the aporia surrounding various concepts of Nature has led to internal divisions amongst environmentalisms. Although certain environmentalists champion pet causes such as global warming, wilderness conservation, or environmental justice, environmental policy largely involves the promotion of transportation, industrialization, urbanization, and other uses of environmental resources. As such, environmentalism appears to be another special interest group (Meyer 155). As Michael Shellenberger and Ted Nordhaus argue in “The Death of Environmentalism,” “the roots of the environmental community’s failure can be found in the way it designates certain problems as environmental and others as not” (25). Indeed, global warming has long been subsumed under the “environmental” heading, while global issues such as poverty, war, and the rapidity of technological advances are deemed “societal” concerns. As the aforementioned titles suggest, a common strategy for combating such myopia has been to abandon hackneyed terminology. Thus, along with Nature, “modern environmentalism, with all of its unexamined assumptions, outdated concepts and exhausted strategies, must die so that something new can live” (Shellenberger and Nordhaus 21). However, rather than concocting a new environmental vocabulary, moving beyond Nature requires a fundamental shift in cultural perceptions of being—properly speaking, a new ontology. Such cultural perceptions are deeply connected to cultural productions. That is, aesthetics plays a central role in constructing a culture’s worldview (Morton *Ecology 2*). Accordingly, Timothy Morton offers an alternative rhetorical mode: “I call this transitional mode ‘dark ecology’... Instead of perpetuating metaphors of depth and authenticity (as in deep ecology), we might aim for something profound yet ironic, neither nihilistic nor solipsistic, but aware like a character in a noir movie of her or his



entanglement in and with life-forms” (Morton “Queer” 279). In fact, such an aesthetic characterizes the aforementioned William Gibson’s novel, *Neuromancer*. Just as “the future is already here, it’s just not very evenly distributed,” *Neuromancer* prefigures an ontology of dark ecological entanglement.

The first novel to win science fiction’s triple crown of awards (The Hugo, Nebula, and Philip K. Dick Awards) (McCaffery 217), *Neuromancer* documents the convoluted scheme of Wintermute, an Artificial Intelligence (AI) that manipulates a cyberspace hacker named Case in order to merge with another AI, Neuromancer, and become the consciousness of cyberspace. Often cited as a dystopian narrative of ecocide, *Neuromancer* provides a textual laboratory for rethinking those unpleasant, and thus unaddressed, aspects of coexistence. As a tale of technological subversion that does not fit the standard mold of ecocriticism, the novel is particularly ripe for an exposition of dark ecology. The impetus for this “dark ecology” derives from the idea that “[i]f ecological criticism is to progress—beyond the idea of progress itself as the domination of nature, that is—it must engage negativity fully rather than formulate suppressants against perceiving it” (Morton *Ecology* 123). As the originator of dark ecology, Timothy Morton, describes its implications:

The ecological thought permits no distance. Thinking interdependence involves dissolving the barrier between ‘over here’ and ‘over there,’ and more fundamentally, the metaphysical illusion of rigid, narrow boundaries between inside and outside. Thinking interdependence involves thinking difference. This means confronting the fact that all beings are related to each other negatively and differentially, in an open system without center or edge. (*Ecological Thought* 39)

In the case of the technologically overridden environment of *Neuromancer*, thinking ecologically requires accepting the entangled relations between humans, artificial intelligence, and technological objects. However, technology has been particularly difficult to absorb into an ecological worldview:

Ecological culture is supposed to be soft and organic, old-fashioned and kitschy, while technoculture is hard, cool, and electronic. But there are surprising connections between the imminent ecological catastrophe and the emergence of virtual reality... Both virtual reality and the ecological panic are about immersive experiences in which our usual reference point, or illusion of one, has been lost... Virtual reality and the ecological emergency point out the hard truth that *we never had this position* in the first place.

(Morton *Ecology* 26-7)

Part and parcel of a dark ecology involves seeing the world as composed entirely of *real* objects that generate *real* effects. These objects may be living or nonliving, and an idea is an entity as much as a tangible thing. Objects do not exist *for* subjects, and thus, each object is self-determined. A dark ecology must not ignore the autonomy of objects, and in particular, those objects that exemplify the for-us fallacy: technologies. This view of objects as autonomous and independent has been theorized in a recent strain of philosophy called *object-oriented ontology*. In fact, dark ecology may benefit from joining forces with object-oriented ontology<sup>2</sup>. Indeed, the following examination proposes that reading the entangled relations of *Neuromancer* through the lenses of dark ecology and OOO illustrates that understanding technological objects *qua* objects confirms that, first, there is no Nature, only specific objects, and second, that these entities are autonomous, and thus there are always aspects of these objects that cannot be known.

---

<sup>2</sup> Hereafter referred to as OOO

The literary value of dark ecology and OOO is that they allow us to see *any* text as ecological, insofar as these frameworks demonstrate that the environment is not “Nature,” and thus cannot be forced into the background. Reading Gibson's text with attention to the ways its environment—its objects—act, proffers a narrative for our current technologically saturated environment. Thus, the following essay will demonstrate that the complex relationships enacted between humans, artificial intelligences, and technological objects in *Neuromancer* may provide a model for the recognition of *coexistence* as a basic component of existence, and thus a defining feature of a specifically ecological, collaborative nature.

**Part II.**  
*No More Shakespeare after Chernobyl*

The physicist Erwin Schrödinger has identified two central axioms that inform the sciences' view of nature. The first, that nature is objective, led to the separation of subject and object (Keller 141). This subject-object dualism, which is almost universally construed as a precipitant of environmental destruction, supposes a conscious subject, "over here," that contemplates its object, Nature, "over there." If the subject is taken to be human and the object natural, then this binary casts the human outside of nature. The second axiom, that nature is knowable, has exacted its own vengeance:

Science is born out of the addition of Schrödinger's second tenet—out of the confidence that nature, so objectified, is indeed knowable. Not only is a connection between us as knowers and the reality to be known here posited, but the connection posited is of an extraordinarily special nature. For most scientists it implies a congruence between our scientific minds and the natural world—not unlike Plato's assumption of kinship between mind and form...that permits us to read the laws of reality without distortion, without error, and without omission. Belief in the knowability of nature is implicitly a belief in a one-to-one correspondence between theory and reality. (Keller 142)

While the dilemma that ensued from the splitting of subject and object has been well rehearsed by now, the belief in nature's knowability has created equally unsettling circumstances. Aside from the fact that scientific theory demands reductionism, such an assumption leads to a belief that humans are the only creatures capable of defining reality. Furthermore, it engenders the view that the human mind has the singular ability to comprehend nature. As will be shown in a later discussion, *Neuromancer*, dark ecology, and OOO undermine the validity of the sciences'

pretense to objective knowledge.

Taking its cue from the findings of the scientific community, the literary discipline of ecocriticism has largely reinforced the objective, knowable view of Nature, at the expense of nature. To the detriment of its own agenda, ecocriticism has tended to exalt the didactic stance of certain texts that instruct their readers as to how to aesthetically appreciate the environment. This genre of “nature writing,” exemplified by “nature poets” such as Thoreau, Wordsworth, and Muir, often asserts that one should return to Nature to cure the ills spawned by society. In an oft-cited passage, John Muir opines:

Thousands of tired, nerve-shaken, over-civilized people are beginning to find out that going to the mountains is going home; that wildness is a necessity; and that mountain parks and reservations are useful not only as fountains of timber and irrigating rivers, but as fountains of life. Awakening from the stupefying effects of the vice of over-industry and the deadly apathy of luxury, they are trying as best they can to mix and enrich their own little ongoings with those of Nature, and to get rid of rust and disease. (1)

Here, Nature signifies purity and rebirth, a haven for the world-weary. Even more symptomatic is Muir’s designation of mountains and rivers, specifically, as Nature. Indeed, ecocritics lament the loss of an aestheticized, redemptive Nature, and typically disdain works that contain environmental degradation. Moreover, as Lawrence Buell has asserted in “Ecocriticism: Some Emerging Trends,” “First-wave and to some extent even second-wave ecocriticism have tended to be strongly region and community-oriented, prioritizing local place-allegiance, ecological distinctiveness, and the like” (100). In Muir’s evocation of mountains and rivers, then, the world’s deserts, ice fields, and plains remain undervalued—not to mention the world’s villages and cities. Thus, in their quest to fortify environmentalist discourse, ecocritics and nature writers

privilege a particular concept of Nature that implicitly disparages humans and all things cultural. Accordingly, science fiction has historically received little ecocritical attention. However, in declaring science fiction opposed to ecological concerns, ecocritics run the risk of placing faith in a chimera and ignoring the present state of ecological disaster. In her essay “Eco-Subjects,” Verena Conley writes, “it can be asked if the desire to let be is not a longing for the impossibility of a pretechnological world” (79). Increasingly, nature writing seems anachronistic in a world marred by ecological catastrophes. As Jean-Luc Godard ironically quips in his rendition of *King Lear*, “No more Shakespeare after Chernobyl!” (qtd. in Conley 80).

On such grounds, William Gibson has been criticized for his brand of science fiction novels that are said to “harbor no utopian impulses, offer no blueprint for progressive social change, and generally evade the responsibility to imagine futures that will be more democratic than the present” (qtd. in Renegar and Dionisopolous 337). However, as Morton has convincingly maintained in *The Ecological Thought*, “Dark ecology makes the world safe for the ecological thought. The only way out is down. It is the ultimate detox. But like homeopathy, it uses poison as medicine. Rather than closing our ears and making loud noises to combat the sound of anti-ecological words, we shall absorb them and neutralize them from within (59). Thus, against critics who contend that truly ecological texts must conserve pristine notions of Nature, texts that confront the reality of technological domination are more likely to provide constructive insight into how technology can be assimilated into an ecological worldview. From a conventional ecocritical perspective, *Neuromancer* appears complicit in technological dominance. However, from the point of view of dark ecology, *Neuromancer* demonstrates that humans create Nature precisely where we have lost it. Indeed, “We become aware of the worldness of the world only in a globalizing environment in which fiber optic cables run under

the ocean and satellites hover above the ionosphere...we are becoming aware of the world at the precise moment at which we are ‘destroying’ it—or at any rate, globally reshaping it” (Morton *Ecological* 132). Therefore, *Neuromancer*’s emphasis on a globalized environment diverges from ecocritics’ proclivity to privilege specific places. Moreover, William Gibson has explicitly stated that *Neuromancer* is “about the present. It is not really about an imagined future. It’s a way of trying to come to terms with the awe and terror inspired in me by the world in which we live” (qtd. in Renegar and Dionisopolous 338).

Numerous scholars have defended *Neuromancer*’s critical capacities. As Larry McCaffery characterizes *Neuromancer*’s significance:

What made *Neuromancer* such an auspicious debut, however, was not its debts to earlier authors but the originality of its vision, especially the fresh, rush-of-oxygen high of Gibson’s prose, with its startling similes and metaphors drawn from computers and other technologies, and its ability to create a powerfully resonant metaphor—the ‘cyberspace’ of the computer ‘matrix’—where data dances with human consciousness, where human memory is literalized and mechanized, where multi-national information systems mutate and breed into startling new structures whose beauty and complexity are unimaginable, mystical, and (above all) *non-human*. (218)

Thus, while *Neuromancer* certainly addresses human realities, it offers a glimpse of the inner life of non-human and inanimate objects—albeit in an entirely *realistic* manner. All of the events described in Gibson’s novel are within the realm of possibility, making *Neuromancer* particularly unsettling. As Gibson has said of his novel, “My aim isn’t to provide specific predictions or judgments so much as to find a suitable fictional context in which to examine the very mixed blessings of technology” (McCaffery 228). Indeed, as Renegar and Dionisopolous

insist:

Specifically, we argue that this novel, and other work like it, can serve as a vehicle for self-reflection and social criticism. We suggest that the genre's fictional constructions of 'realities in the not-too-distant future' can function to stimulate critical examination of contemporary society by revealing the potentially disturbing trajectories of certain cultural practices that have become so embedded that they have become essentially invisible. (324)

In other words, *Neuromancer* confirms, in a much-needed engagement with the relations of technology and environment, that the current world order necessitates the recognition of technology's prevalence and its impact on both the environment and the global society.

Published in 1984, *Neuromancer* portrays a global society in which technology permeates every facet of humanity. In this sense, it portrays the ethos of the time in which it was written, when the potential of technology, and particularly computers, seemed endless and uncertain. Despite this apprehension, the advent of the Internet aroused the entrepreneurial spirit, which is defined by its need for renewed dominion. Perhaps it is no coincidence, then, that Fredric Jameson published his manifesto on the logic of late capitalism in the same year that *Neuromancer* appeared. Like Gibson, he acutely observed the gravity of this technological advance:

The technology of contemporary society is therefore mesmerizing and fascinating not so much in its own right but because it seems to offer some privileged representational shorthand for grasping a network of power and control even more difficult for our mind and imaginations to grasp: the whole new decentered global network of the third stage of capital itself...in which the circuits and networks of some putative global computer



hookup are narratively mobilized by labyrinthine conspiracies of autonomous but deadly interlocking and competing information agencies in a complexity often beyond the capacity of the normal reading mind. (37-8)

In fact, this fascination persists today, as contemporary society witnesses the simultaneous embrace of and reluctance towards novelty. Indeed, an integral aspect of Gibson's foresight lay in his sense of the inherent tension between progress and loss.

From its opening sentence, *Neuromancer* depicts an environment invaded by technology: "The sky above the port was the color of television, tuned to a dead channel" (3). Any mention of the natural is placed in relief by its technological origins:

They had breakfast on the roof of the hotel, a kind of meadow, studded with striped umbrellas and what seemed to Case an unnatural number of trees... The trees were small, gnarled, impossibly old, the result of genetic engineering and chemical manipulation. Case would have been hard pressed to distinguish a pine from an oak, but a street boy's sense of style told him that these were too cute, too entirely and definitively treelike. Between the trees, on gentle and too cleverly irregular slopes of sweet green grass, the bright umbrellas shaded the hotel's guests from the unfaltering radiance of the Lado-Acheson sun. (128)

Even the light is artificial, as Case "knew that sunlight was pumped in with a Lado-Acheson system whose two-millimeter armature ran the length of the spindle, that they generated a rotating library of sky effects around it, that if the sky were turned off, he'd stare up past the armature of light to the curves of lakes, rooftops of casinos, other streets..." (124). Indeed, the ubiquity of artifice taints any concept of the natural portrayed in the novel, and it is the failure to keep pace with technology that now seems unnatural: "The bartender's smile widened. His

ugliness was the stuff of legend. In an age of affordable beauty, there was something heraldic about his lack of it” (4). Furthermore, the preservation of “the stuff of legend” also inspires a disturbing sense of the uncanny:

‘Hey, Christ,’ the Finn said, taking Case’s arm, ‘looka that.’ He pointed. ‘It’s a horse, man. You ever see a horse?’ Case glanced at the embalmed animal and shook his head. It was displayed on a sort of pedestal, near the entrance to a place that sold birds and monkeys. The thing’s legs had been worn black and hairless by decades of passing hands. ‘Saw one in Maryland once,’ the Finn said, ‘and that was a good three years after the pandemic. There’s Arabs still trying to code ‘em up from the DNA, but they always croak.’ (91-2)

The awe and disgust with which the Finn and Case gawk at the horse reveal their utter unfamiliarity with the natural world, as if this symbol of nature represented a return of the repressed. At the same time, they appear intrigued by this obsolescent form, as they know that they share origins with this animal. Still, a method of copying nature through synthetic DNA seems preferable, or at least, more familiar. If successful, the Finn’s comments imply that there would no longer be a reason to preserve the embalmed horses of the world, or any relic of nature. Consequently, in the absence of a qualitative difference between natural and artificial methods of generation, Nature begins to disappear. As per dark ecology, the Nature of *Neuromancer* has been replaced by a technological landscape; and, as per OOO, a Nature that does not account for all things is strictly untenable.

Therefore, rather than learning from a mythical Nature, information dominates the novel’s characters’ experiences. In his interview with McCaffery, Gibson insists, “Information is the dominant scientific metaphor of our age, so we need to face it” (McCaffery 227). Although

he betrays a twinge of ambivalence, Case perceives his surroundings, and everything, in terms of its data:

Get just wasted enough, find yourself in some desperate but strangely arbitrary kind of trouble, and it was possible to see Ninsei as a field of data, the way the matrix had once reminded him of proteins linking to distinguish cell specialties. Then you could throw yourself into a highspeed drift and skid, totally engaged but set apart from it all, and all around you the dance of biz, information interacting, data made flesh in the mazes of the black market. (16)

In the same interview, McCaffery responds to Gibson's aforementioned claim: "One of the issues your work raises is the way that information—this 'dance of data' as you refer to it—not only controls our daily lives, but it may be the best way for us to understand the fundamental processes controlling the universe's ongoing transformations" (227). Clearly, Case makes an analogy between biological and technical entities, as both sorts of beings can exchange information with the objects that constitute their environment. Similarly, in one metaphor for the way that objects interact, OOO philosopher Levi Bryant contends that all objects encounter one another as information or system-states (62). As Bryant explains, all objects produce their own information according to their internal organization. As a consequence, "every object or system is beset by its own system *internal* entropy as a consequence of the other objects or systems of which it is composed. Because objects are not intermediaries but rather mediators, the elements that a system constitutes never quite behave in the way the system anticipates" (Bryant 183). Thus, OOO allows for nonhuman and inanimate objects to communicate and respond, even if somewhat imprecisely. Moreover, the results of such interactions cannot always be predicted. In an age of ecological awareness, OOO provides a method for attending to the ways that objects

“speak” to humans (Morton “Here Comes” 166).

However, in light of the fact that technology can compute information more efficiently than humans, technology has been able to proliferate at a pace that that compromises humans’ mental capacity to process it entirely, as one description of cyberspace intimates: “silver phosphenes boiling in from the edge of space, hypnagogic images jerking past like film compiled from random frames. Symbols, figures, faces, a blurred, fragmented mandala of visual information” (Gibson 52). Certainly, the degree to which technology allows for information consumption recalls Jameson’s concern that “the human subjects who happen into this new space, have not kept pace with that evolution” (38). Rather than evading the reality of this circumstance, *Neuromancer* thus represents an attempt to confront technological saturation. Moreover, the novel’s conclusion suggests that humans may no longer be in control of the very technologies that they created. Such a realization corresponds with OOO’s avowal of the withdrawal and autonomy of objects, for the reality of technologies far exceeds the applications devised by their human users.

Instead of nature writing’s commitment to a Natural aesthetic, the genre of cyberpunk, of which *Neuromancer* is the prime example, demonstrates that “the relationship between what we know and what we see is always unsettled; and that understanding the present requires grappling with the tension between what we think we understand and what may be imagined beyond the limits of the understandable” (Cavallaro xvi). That is, cyberpunk allows for the world around us to seem foreign. Indeed, in *Neuromancer*, nature is irreducibly alien—but it is also *right here*. Furthermore, in cyberpunk, technology heralds an engulfment of the human by the nonhuman (Cavallaro 28). Thus, the aesthetic of cyberpunk reveals the extent to which humans are

composed of both living and non-living entities, human and nonhuman. In this way, cyberpunk dissolves the prevalent nature/ culture binary.

Certainly, within the Western philosophical tradition, the division between the Greek concepts of *physis* and *techné* has resulted in a fundamental separation of nature and culture. The Greek term *physis* stems from *phyo*, which means, “to put forth,” while the Latin *natura* is derived from *nasci*, meaning, “to be born.” In this way, *natura* became the Latin translation of *physis*. As *physis* originally referred to how plants put forth their leaves, it came to designate the driving force exclusively within natural objects (Rothenberg 56). Conversely, *techné* variously translated as “art” or “craft,” refers to humans’ capacity to make and produce objects, and thus *techné* is often construed as representing “the human penchant to go beyond nature” (Rothenberg 8). As the etymological origin of technology is *techné* + *logos*, technology is thus judged to be opposed to nature, insofar as humans’ *techné* is considered unnatural. Indeed, a typical definition of technology runs something like: “Technology is the totality of artifacts and methods humankind has created to shape our relations to the world that surrounds us, modifying it into something that can be used and manipulated to submit to our needs and desires” (Rothenberg xii). However, alongside this seemingly ingrained tendency to divide nature and technology, a view of technology as inextricably, albeit ambivalently, linked with nature has persisted. In fact, this separation was a much later development in Western history, as Aristotle saw *techné* as a mediator between nature and humanity, in that *techné* allows humans to create what nature cannot, and thereby *completes* the natural world (Guattari 13).

The contrast between technology and environment, culture and nature, therefore depends upon a distinction between the artificial and the natural. Yet as Theodore Schatzki argues in “Nature and Technology in History,” the boundaries between artifice and nature have been

blurred by and through technology, in that “technological objects either are alterations of natural things, transformations of natural things into artifacts, or reworkings of artifacts already derived from nature” (92). As Walter Benjamin has maintained, “There is no more insipid and shabby antithesis than that which reactionary thinkers...try to set up between the symbol-space of nature and that of technology. To each truly new configuration of nature—and, at bottom, technology is just such a configuration—there correspond new ‘images’” (390). The sixteenth-century philosopher Francis Bacon echoes Benjamin’s claim in asserting that “the artificial does not differ from the natural in form or essence...Nor matters it, provided things are put in the way to produce an effect, whether it be done by human means or otherwise” (qtd. in Rothenberg 68). As David Rothenberg describes the predicament wrought by the nature/ culture distinction:

If nature is a synonym for everything contained in the universe, then it carries little normative weight. If it is intended to refer to all things and processes *outside* of human alteration, then we have little hope of finding any place within it. If technology contradicts it, we can do nothing to improve our ‘naturally’ given place in the world. If technology represents it, then the world is never more than what we can know of it. For nature to be a guide, it must be the carrot at the end of the stick—always tasty, always out of reach. (56)

Indeed, the obvious quandary inherent to the nature/ culture split bolsters the previously described call to abandon socially constructed beliefs about Nature.

Perhaps the view of technology that has most influenced contemporary philosophy comes from Martin Heidegger, who saw technology as profoundly related to humans’ Being-in-the-world, and thus, humans’ relation to their environment. As it was outlined in his early work *Being and Time*, Heidegger’s notion of equipment as objects that are “ready-to-hand”—that is, objects in the environment which are specifically “in-order-to” complete a task—coheres with

the idea of technology as “world-disclosing” (Schatzki 91). As Heidegger states, “We shall seek the worldhood of the environment (environmentality) by going through an ontological Interpretation of those entities within-the-*environment* which we encounter as closest to us” (*Being and Time* 94). Because these entities, or equipment, necessarily belong to a “totality of involvements,” or context, within humans’ world, Heidegger contends that the use of equipment reveals aspects of humans’ environment:

In roads, streets, bridges, buildings, our concern discovers nature as having *some definite direction*. A covered railway takes account of bad weather; an installation for public lighting takes account of the darkness... When we look at the clock, we tacitly make use of the ‘sun’s position.’... When we make use of the clock-equipment, which is proximally and inconspicuously ready-to-hand, the *environing Nature* is ready-to-hand also. (*Being* 100-1)

Despite the for-us fallacy, his analysis remains useful for considering the ways that technology, as one form of equipment, and the environment are mutually informing. Heidegger specifically addresses technology in his essay, “The Question Concerning Technology,” in which he contrasts modern technology with the ancient Greek concept of *techné*. Although Heidegger condemns modern, instrumental technology for its domination of nature, he ultimately argues, “the essence of technology is nothing technological” (35). Rather, the essence of technology, or *techné*, belongs within that of *poiesis*, which is a “bringing-forth” (“Question” 34). Thus, technology, as *poiesis*, reveals nature. For Heidegger, then, the essence of technology is “neither instrument of freedom nor alien object, but an approach to truth” (Rothenberg 80). Similarly, *Neuromancer* points to the equivalence of *techné* and the “bringing-forth” of nature.

**Part III.**  
*The Dark Ecology of Objects*

Clearly, an understanding of environment depends on equipment, or more broadly speaking, objects. The significance placed on objects in Heidegger's philosophy thus marks a momentous departure from the prevailing view of objects, in which objects are constituted by the human subject's consciousness. To be sure, Heidegger never saw objects as solely determined by subjects. Rather, Heidegger holds that all objects are at least partially inaccessible to human understanding, thereby conveying the irreducibility of objects to subjective perspectives. This much is clear from his analysis of equipment in *Being and Time*, in which he states, "The peculiarity of what is proximally ready-to-hand is that, in its readiness-to-hand, it must, as it were, withdraw [zurückzuziehen]" (99). This peculiarity arises from Heidegger's contention that the most common way of encountering objects involves taking their use for granted, rather than being conscious of the objects in themselves (Heidegger *Being* 99). As this theory of the withdrawal of objects allows for objects' independence from subjects, it became a central tenet of OOO.

As OOO is a relatively nascent branch of philosophy, a recapitulation of its key claims will aid in understanding its relevance to dark ecology and Gibson's work. The forerunner of the movement, the aforementioned Graham Harman, pioneered OOO in his 2002 publication, *Tool-Being: Elements in a Theory of Objects*, through a re-reading of Heidegger's tool analysis. According to Harman, Heidegger's great contribution to the history of philosophy is his realization that a difference exists between the "executant reality of an object and its encountered surface" (Harman "Object-Oriented" 98). According to Harman, "the tool analysis sketches nothing less than a general object-oriented philosophy" ("Object-Oriented" 96). Whereas much



of twentieth century philosophy dealt with the so-called “linguistic turn” and philosophy of consciousness, Harman contends that few philosophers have dared to look beyond the privileged human sphere, or that of the subject. He laments the condition of current philosophy, which has nothing to say about the world itself:

But beneath this ceaseless argument, reality is churning. Even as the philosophy of language and its supposedly reactionary opponents declare victory, the arena of the world is packed with diverse objects, their forces unleashed and mostly unloved. Red billiard ball smacks green billiard ball. Snowflakes glitter in the light that cruelly annihilates them, while damaged submarines rust along the ocean floor. As flour emerges from mills and blocks of limestone are compressed by earthquakes, gigantic mushrooms spread in the Michigan forest. While human philosophers bludgeon each other over the very possibility of ‘access’ to the world, sharks bludgeon tuna fish and icebergs smash into coastlines... Will philosophy continue to lump together monkeys, tornadoes, diamonds, and oil under the single heading of that-which-lies-outside? (“Object-Oriented” 94-5)

Heeding Harman’s call to arms, philosopher Levi Bryant began research into Harman’s object-oriented philosophy. A full twelve years after the above lines were written, Bryant adopted the term “object-oriented ontology” in his 2011 book, *The Democracy of Objects*. Since then, the quantity of scholarship on OOO has soared. With Harman and Bryant forming the core of the movement, Timothy Morton and Bruno Latour have served as prominent figures in literary criticism and the social sciences, respectively. Yet perhaps the most accessible definition of OOO comes from video-game designer Ian Bogost in his 2012 book, *Alien Phenomenology, or What It’s Like To Be a Thing*:

If ontology is the philosophical study of existence...OOO puts *things* at the center of being. We humans are elements, but not the sole elements of philosophical interest. OOO contends that nothing has special status, but that everything exists equally—plumbers, cotton, bonobos, DVD players, and sandstone, for example. In contemporary thought, things are usually taken either as the aggregation of ever smaller bits (scientific naturalism) or as constructions of human behavior and society (social relativism). OOO steers a path between the two, drawing attention to things at all scales (from atoms to alpacas, bits to blinis) and pondering their nature and relations with one another as much with ourselves. (6)

Though the terms may vary—Bryant, Harman, Morton, and Latour use *objects*, while Bogost alternates between *things* and *units*—the essence of OOO lies in discrete entities. Broadly speaking, a thing, object, or unit encompasses four aspects: it withdraws from access by other objects, it *appears* to other objects, it is a specific entity, and finally, it really exists (Morton “Sublime” 216). Paradoxically, an object encloses a system, but also may become a part of one or many systems at any time (Bogost 25). Objects may be concrete or intangible, and thus a rock, a river, and an intention all constitute discrete objects, and as such, may affect other objects. Indeed, every object is treated equally by OOO, and thus Bryant writes, “the world does not exist...there is no ‘super-object’, Whole, or totality that would gather all objects together in a harmonious unity” (32). Thus, on a cosmic scale, “we have a universe made up of objects wrapped in objects wrapped in objects wrapped in objects” such that, “[e]very object is both a substance and a complex of relations” (Harman *Guerrilla* 85). However, a crucial characteristic of objects, and one underscored by OOO, is their autonomy. That is, there is an absolute difference between objects and their relations, parts, and qualities (Harman “Object-Oriented”

199). Therefore, OOO holds that there is a fundamental difference between perceptions and objects, that the sum total of events does not exhaust the reality of objects, that there is no layer of subatomic parts that explains the rest of reality, and that physical efficient causation is simply a special type of metaphysical formal causation (Harman *Guerrilla* 79). These conditions explain the four aspects of objects outlined above. Objects withdraw because they cannot be reduced to their qualities; objects *appear* because they are withdrawn; objects are discrete because they cannot be reduced to their parts; and objects exist because they are not their relations.

OOO therefore has two central concerns. First, it aims to dismantle the widespread idea that “we only ever have access to the correlation between thinking and being, and never either term considered apart from the other” (Meillassoux 5). Aptly dubbed “correlationism” by Quentin Meillassoux in his influential book, *After Finitude: An Essay on the Necessity of Contingency*, correlationism upholds the anthropocentric view that mind fits world and world fits mind—and thus there is no world without humans and vice versa. Following correlationism, an object not only does not have autonomy; the object does not exist (Harman “Object-Oriented 199). Secondly, OOO counters the assertion that objects only exist as relations, or the idea “in which an object is nothing more than its effects on or relations with other objects” (Harman “Realism” 64). Empiricism tends to fall into the relationist trap, as it maintains that objects are constituted by a human’s unification of the object’s qualities. Even scientific naturalism reduces objects to their relations, as any tangible properties of the object that can be measured have meaning only in relation to other things, namely humans (Harman “Object-Oriented” 199-200). Hence, as Steven Shapiro summarizes OOO:

This is a view of the world that...is not centered upon questions of consciousness, subjectivity, and the epistemological problem of human access to an external world.

Rather, object-oriented philosophy affirms a ‘marvelous plurality of concrete objects’ ... each with its own integrity and its own mysterious depths. The ‘universe of things’ is not a harmonious whole, but a wild anarchy of innumerable objects both withdrawing from and reaching out to one another. And these objects cannot be contained within the fixed categories that we would seek to impose upon them. Object-oriented philosophy is therefore equally opposed to scientific naturalism and to so-called social constructionism. Against the former, it insists that no object is reducible to, or fully explicable in terms of, its ultimate subatomic constituents. Against the latter, it insists that the world is not made by us and for us. (132)

OOO, then, considers itself a form of realism, but not materialism, because materialism falls under the heading of scientific naturalism. OOO holds that a “real world exists outside our minds, not exhausted by its appearance to us” (Harman “Realism” 54). However, such a realism could only be considered a speculative realism, and in fact, OOO derives from the larger speculative realist movement. As such, Harman is free to declare, “The object...is neither material nor relational, which means that it must be both *immaterial* and *substantial*, in a sense yet to be determined” (“Object-Oriented” 104). As Bogost beams, “As philosophers, our job is to amplify the black noise of objects...our job is to write the speculative fictions of their processes, of their unit operations. Our job is to get our hands dirty with grease, juice, gunpowder, and gypsum. Our job is to go where everyone has gone before, but where few have bothered to linger” (34).

One particularly distinctive tenet of OOO is its claim that objects not only withdraw from other objects, but also withdraw from themselves. This conviction correlates to the idea that objects are not their qualities or relations. Furthermore, this belief ensures that objects cannot be

reduced to their subatomic parts. Indeed, to claim that objects withdraw from other objects, without holding that objects withdraw from themselves, would mean that objects can be fully known, if only by themselves. However, the contention that objects can never fully be known, even by themselves, is a defining feature of OOO. As Bryant describes this phenomenon:

[I]f we begin from the other end with ontology and note that substance is such that 1) it can actualize different qualities at different times (Aristotle), and that 2) it can fail to actualize qualities (Bhaskar), we can now argue that the very essence or structure of substance lies in self-othering and withdrawal. Insofar as objects or substances alienate themselves, as it were, in qualities, they are self-othering. They generate differences in the world. However, insofar as objects are never identical to their qualities, insofar as they always harbor a volcanic reserve in excess of their qualities, they perpetually withdraw from their qualities such that they never directly manifest themselves in the world. (85)

Consequently, an object's means of making sense of another object is not universal and cannot be explained by natural law, scientific data, or even its own perspective (Bogost 30). Therefore, an object's experience of itself will necessarily differ from another object's experience of it. Moreover, against critics that allege that OOO is incompatible with the notion of a subject, Ian Bogost retorts that OOO is entirely equipped to discuss the subject, and rather "the problem lies in the assumption that only one subject—the human subject—is of interest or import" (23). Thus, an object can still be a subject, but "subject" no longer refers only to human consciousness. Whereas "subject" implies a complete knowledge of oneself and one's environment, OOO demonstrates that such a being does not exist.

Considering its rejection of anthropocentrism, OOO shares affinities with dark ecology.

Most significantly, following Harman's contention that "nature is not natural," OOO overturns the category of a socially constructed Nature, as Nature implies the sorts of limits that OOO dissolves. The nature/ culture split, the idea of inside and outside, a world with a horizon—these and similar constraints are rendered indefensible by a philosophy that integrates *all* beings. If the overarching metaphor prefigured in Nature is inherently fallacious, an entirely new conception must be devised. Therefore, Morton has suggested the "mesh" as an alternative to Nature. Specifically, he proposes "that life-forms constitute a *mesh*, a nontotalizable, open-ended concatenation of interrelations that blur and confound boundaries at practically any level: between species, between the living and the nonliving, between organism and environment" ("Queer" 275-6). Furthermore, the mesh also denotes "a complex situation or series of events in which a person is entangled; a concatenation of constraining or restricting forces or circumstances; a snare" (Morton *Ecological Thought* 28). Morton's concept demonstrates the absence of a privileged point from which one could assess the totality. Indeed, the mesh is a level playing field in which humans' perceptions are just as limited as those of nonhumans. As this reading of *Neuromancer* will show, the coexistence of humans, AI, and other technological objects symbolizes the mesh-like quality of a globalized ecology. Moreover, cyberspace itself could be viewed as a mesh, as this definition suggests:

Its depths increase with every image or word or number, with every addition, every contribution, of fact or thought. Its horizons recede in every direction; it breathes larger, it complexifies, it embraces and involves. Billowing, glittering, humming, coursing, a Borgesian library, a city; intimate, immense, firm, liquid, recognizable and unrecognizable at once. (Benedikt 2)

Just as cyberspace rejects hierarchies and holism, to be enmeshed requires increased

responsibility, for oneself and for all things. The mesh's quality of interdependence also "implies differences that cannot be totalized" (Morton "Queer" 278). Such a formulation thus explains how, according to OOO, an object may exist independently and yet still interact with other objects. This ability to see beings as distinct and yet connected is essential for a truly ecological perspective.

Still, OOO's ecological potential has not yet been expended. The philosophy's insistence upon the withdrawal of objects quite literally explains the inexplicable. For, if "objects are always in excess of any of their local manifestations, harboring hidden volcanic powers irreducible to any of their manifestations in the world" (Bryant 70), then a heightened appreciation of the mystery of being can take root. Put another way, humans will never know what it is like to be a bat. The utterly subjective character of experience has long been a source of contention. The philosopher of mind Thomas Nagel writes in his essay "What Is It Like to Be a Bat?" that the reduction of experience to physical activity fails to explain what is like to *be* a nonhuman organism:

But bat sonar, though clearly a form of perception, is not similar in its operation to any sense that we possess, and there is no reason to suppose that it is subjectively like anything we can experience or imagine. This appears to create difficulties for the notion of what it is like to be a bat. We must consider whether any method will permit us to extrapolate to the inner life of the bat from our own case. (394)

In truth, this being-likeness eludes scientific investigation, and Nagel is left to conclude, "Strangely enough, we may have evidence for the truth of something we cannot really understand" (401). Although it bears no pretense to overcoming the withdrawal of objects, OOO at least offers the theory that "The closest point of approach to objects turns out to be through

*metaphor*” (Harman *Guerrilla* 98). Indeed, as the etymological roots of “metaphor” indicate, a metaphor is simply “a transfer,” a translation (OED). As the figures of *Neuromancer* discover, their technology is quite adept at “transferring,” or interpreting, information. As Latour reasons, “What those who use hermeneutics, exegesis, or semiotics say of texts can be said of all [objects]. For a long time it has been agreed that the relationship between one text and another is always a matter of interpretation. Why not accept that this is also true between so-called texts and so-called objects, and even between so-called objects themselves?” (qtd. in Bryant 135). OOO accepts that all communication is, to some extent, a miscommunication. Thus, rather than taking recourse to scientific reductionism, the synergetic qualities of coexistence are accepted as unpredictable. The uncertainty required of an OOO worldview matches that which is required in a time of ecological crisis. As Ian Bogost has written, “The true alien recedes interminably even as it surrounds us completely. It is not hidden in the darkness of the outer cosmos or in the deep-sea shelf but in plain sight, everywhere, in everything” (34). Indeed, preserving the strangeness of existence seems far more desirable than a blind acceptance of the world of appearance.

Finally, OOO does not just assume that objects *are* things. Objects *do* things as well, and this claim ratifies what we of the Anthropocene know best: that *to be* is *to affect*. That is, “things constantly machinate within themselves and mesh with one another, acting and reacting to properties and states” (Bogost 27). As a result, Bryant maintains: “First, we should not speak of qualities as something an object *possesses, has, or is*, but rather as *acts, verbs*, or something that an object *does*. Second, knowing an object does not consist in enumerating a list of essential qualities or properties belonging to an object, but rather consists in knowing the powers or capacities of an object” (89). He gives the example of a coffee mug that appears blue in the daytime. The mug does not possess the quality of blue, but as he puts it, “the mug blues” or the



“mug is bluing” or the “mug does blue” during the day. However, if the room is dark, the “mug blacks.” Thus, the mug does not have blue power, but *coloring* power (Bryant 89-90). Under more unusual circumstances, for instance under a different spectrum of light, the mug may very well appear green, or yellow, or red, and so on. The mug, like all objects, has the power to produce more events and differences than it does at any one point in time. While the “powers” of a blue coffee mug probably do not inspire fear, the potentialities within all objects should be cause for concern. If objects, by definition, defy boundaries between inside and outside, then the effects engendered by objects reverberate endlessly. OOO contends that “something is always something else, too: a gear in another mechanism, a relation in another assembly, a part in another whole. Within the black hole-like density of being, things undergo an expansion. The ontological equivalent of the Big Bang rests within every object. Being expands” (Bogost 26). That is, a distinction between inside and outside begins to look insupportable. Extending this notion to its logical conclusion: “[w]hen the environment becomes intimate—as in our age of ecological panic and scientifically measurable risk (Beck)—it is decisively no longer an environment, since it no longer just happens around us” (Morton “Queer” 274). In the current risk society, as in *Neuromancer*, illusions of distance shatter amidst heaps of trash, toxic pollution, and technology’s encroachment into all facets of life.

Upon the erasure of distance, technology was there. As Heidegger observed, “*In Dasein* [human being] *there lies an essential tendency towards closeness*. All the ways in which we speed things up, as we are more or less compelled to do today, push us on towards the conquest of remoteness” (*Being* 140). Such tendencies are on full display in *Neuromancer*, wherein Case, a cyberspace cowboy, risks everything for the orgiastic immanence of the matrix: “Disk beginning to rotate, faster, becoming a sphere of paler gray. Expanding—And flowed, flowered

for him, fluid neon origami trick, the unfolding of his distanceless home, his country, transparent 3D chessboard extending to infinity” (52). While such a description seems only fit for science fiction, Gibson’s rendering of cyberspace enjoys the rare distinction of having been invented for fiction, only to directly influence contemporary argot. For its prescient plot line, *Neuromancer* is generally recognized as a consummate example of cyberpunk:

Cyberpunk has distinguished itself as avant-garde, the newest and hardest wave of science fiction writing since the 1960s...Unlike other future-oriented science-fiction genres, cyberpunk is marked by its portrayal of the near future of our society rather than a world hundreds of years from now or on some distant planet. The technology and artifacts of the present are evolved and imagined as part of the future, resulting in a world that is simultaneously familiar and strange. (Renegar and Dionisopoulos 324)

The idea that technology can manipulate its own circumstances as well as human intentions might seem to belong to another world. Indeed, science fiction has long been preoccupied with creating alternative worlds, but as Gibson recalls, “I remember thinking: what can I do that is alien without aliens?...that is where *Neuromancer* came from” (qtd. in Adams). Indeed, *Neuromancer* appears to embody just the sort of “weird realism” that OOO proclaims.

**Part IV.**  
***Neuromancer: A Technological Ecology***

Filled with kaleidoscopic images of urbanity run rampant, *Neuromancer* reads like a roller-coaster ride with “a hook on every page” (McCaffery 222) that keeps its readers as absorbed in it as its characters are in cyberspace. A sense of boundless connectivity pervades the novel’s environment, in which individual cities have expanded into “the Sprawl” that is the Boston-Atlanta Metropolitan Axis. Bent on speed and novelty, it portrays a technofetishist culture, where “[f]ads swept the youth of the Sprawl at the speed of light; entire subcultures could rise overnight, thrive for a dozen weeks, and then vanish utterly” (58). Waste of all kinds peppers the streets and addiction seems to be endemic. Case, in particular, suffers from an addiction to cyberspace, which he is unable to access after his former employers realized that he had stolen from them:

A year here and he still dreamed of cyberspace, hope fading nightly. All the speed he took, all the turns he'd taken and the corners he'd cut in Night City, and still he'd see the matrix in his sleep, bright lattices of logic unfolding across that colorless void... The Sprawl was a long strange way home over the Pacific now, and he was no console man, no cyberspace cowboy. Just another hustler, trying to make it through. But the dreams came on in the Japanese night like live wire voodoo and he'd cry for it, cry in his sleep, and wake alone in the dark, curled in his capsule in some coffin hotel, his hands clawed into the bedslab, temperfoam bunched between his fingers, trying to reach the console that wasn't there. (4-5)

Beneath the lurid descriptions of crazed techno-obsession, reality shimmers. Gibson has stated time and again that *Neuromancer* was a reaction to the world in which it was written. He

remarks, “You know you're in a very strange place, but you're also aware this weirdness is just your world” (McCaffery 230). Indeed, a world without the Internet, at this point, seems impossible. Therefore, technology cannot be ignored or relegated to the inert class of “objects.” In *Neuromancer*, as in the present day and age, technological objects exhibit agency equal to that of humans. At times, however, their primacy becomes apparent. Describing the cityscape as an environment that permits the rampant development of technology, Case observes, “he also saw a certain sense in the notion that burgeoning technologies require outlaw zones, that Night City wasn't there for its inhabitants, but as a deliberately unsupervised playground for technology itself” (11). With the acceptance of their shared ecosystem with the objects they produce, the humans of *Neuromancer* must acknowledge the proximity of their environment. Indeed, if Heidegger viewed equipment as objects used unconsciously, he never imagined the degree to which humans would become embedded in their cybernetic technologies. *Neuromancer* exposes *this being-in-the-world*. In a dark ecological way, *Neuromancer* probes the networks of humans, computers, and their environments to reveal, in OOO fashion, the mesh, the mystery, and the dynamism of *object-ive* experience.

In addition to OOO, *Neuromancer* proffers an exemplary textual environment for the explication of dark ecology. Its representations of nature and information correspond to that of both theoretical perspectives, and its questioning of the subject's position of power reveals a preference for objects. Of all the objects in the novel, cyberspace figures most prominently. Its “unthinkable complexity” derives from the vast amounts of data it contains, all of which can be accessed at any time, albeit never as a totality. Like the Internet today, its decentered operation remains perspectival, as each person “jacking in” controls the content viewed therein. However, unlike the Internet today, the cyberspace of *Neuromancer* is totally immersive, allowing its users

to feel as though they've entered an autonomous domain:

'The matrix has its roots in primitive arcade games,' said the voice-over, 'in early graphics programs and military experimentation with cranial jacks.' On the Sony, a two-dimensional space war faced behind a forest of mathematically generated ferns, demonstrating the special possibilities of logarithmic spirals; cold blue military footage burned through, lab animals wired into test systems, helmets feeding into fire control circuits of tanks and war places. 'Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts...A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonpspace of the mind, clusters and constellations of data. Like city lights, receding...'

(51)

This notion of consensual experience<sup>3</sup> relates to dark ecology's impression of a nonhierarchical environment—a heading that undoubtedly applies to cyberspace. Just as the idea of the mesh disproves the chimera of distance, "[t]he collapse of space from the infinite physical universe to the infinite imaginary datascape of cyberspace reflects a similar collapse of the distances that had propped up precybernetic arts, to the de-defined, de-auraticized art of postmodernity" (Csicsery-Ronay, Jr. "Sentimental" 224). It thus comes as no surprise that two of the most commonly used terms to designate interconnectedness, "network" and "web," derive from cyberspace metaphors (Morton "Mesh" 24). Indeed, the mesh of cyberspace impedes a distinction between inside and outside, as the very act of experiencing cyberspace denotes inclusion. Thus, cyberspace entails "a

---

<sup>3</sup> Although Gibson uses the term "hallucination," the novel makes clear that cyberspace actually exists. In fact, the term hallucination alludes nicely to the *apparent* perceptions of objects, as they are always partially withdrawn.

tendency to transform the spatial relations between objects into...a violent and reckless motion in which the human body penetrates and is penetrated by its environment” (Csicsery-Ronay, Jr. “Sentimental” 233). As Laura Salisbury notes, “the cyberspace of the console cowboy can thus be read as another mythic space—a space of journeys, displacements, translations, and transformations—that cannot be reduced to the totalizable or striated shapes of Euclidean geometry” (36). In other words, cyberspace is nothing less than a “foundationless space” of “limitless surfaces” (Cavallaro 175). As such, Katherine Hayles proclaims, “The positive seduction of cyberspace leads us to an appreciation of the larger ecosystems of which we are a part, connected through feedback loops that entangle our destinies with their fates” (188). Indeed, because cyberspace symbolizes the mesh, it lays bare humans’ imbrication with technology, and “by turning embodiment into a network of technical relations, the matrix itself assumes a symbiotic and dispersed corporeality to be imagined as an ‘extended electronic nervous system’” (Salisbury 36). Much has been written on technology as human extension. However, *Neuromancer* also details how technology has become entangled with and within the human body itself. At the same time, the novel hints that the merger of humans and technology could lead to undesired consequences, such as a loss of *humanity’s* agency. Indeed, Marie-France’s vision of the integration of Wintermute and Neuromancer would enact such a revocation: “She imagined us in a symbiotic relationship with the AI’s, our corporate decisions made for us. Our conscious decisions, I should say. Tessier-Ashpool would be immortal, a hive, each of us units of a larger entity” (229).

When technology allows one to inhabit another person’s consciousness, as through “simstim,” to gain extrasensorial perception, as through “microsofts,” or to even assume the personality of something else, as Wintermute does repeatedly, the difficulty in distinguishing

between human and technology drastically increases. However, when the threat of artificial intelligence's capacity to control human beings is no longer hypothetical, the question of whom or what holds the greatest power assumes a new significance. That the "Turing police" in *Neuromancer* have such conspicuous authority indicates the degree to which identity has become unstable in technologically mediated reality. Consider the character of Dixie Flatline, a onetime cyberspace cowboy whose consciousness has been digitally preserved in a computer construct. Due to his renowned ability to crack ICE, or "intrusion countermeasures electronics" (28), Molly and Case steal the construct to assist with their clandestine mission. However, as Case comes to realize, Dixie is hardly dead:

'Motive,' the construct said. 'Real motive problem, with an AI. Not human, see?' 'Well, yeah, obviously.' 'Nope. I mean, it's not human. And you can't get a handle on it. Me, I'm not human either, but I *respond* like one. See?' 'Wait a sec,' Case said. 'Are you sentient, or not?' 'Well, it feels like I am, kid, but I'm really just a bunch of ROM. It's one of them, ah, philosophical questions, I guess....' The ugly laughter sensation rattled down Case's spine. 'But I ain't likely to write you no poem, if you follow me. Your AI, it just might. But it ain't no way *human*.'(131)

Indeed, the indiscernibility of an AI and a human being figures prominently in the novel. Likewise, a great deal of the novel's technology is devoted to determining the ontology of a given object, that is, the "philosophical questions." As Molly says of a technofetishist who has "sensed" that Case is listening in on their conversation through simstim, "I didn't know you were so...sensitive. I'm impressed. Costs a lot, to get that sensitive" (57). However, as Dixie reminds Case, "you can't get a handle on it." Indeed, just as OOO argues, objects remain shrouded in mystery, withdrawing from other objects and themselves. Certainly, the

entanglement of human bodies with technology augments the human characters' senses. In some cases, it even provides them with entirely new abilities, as Molly is equipped with razorblades under her fingernails and mirrored lenses inset into her eye sockets. However, the very entanglement that augments our perceptions also heightens the mystery with which we view ourselves and other objects.

In fact, Donna Haraway's discourse on cyborgs proffers the quintessential conceit for the figure of machinic bodies. Haraway's cyborg is "a hybrid creature, composed of organism and machine," (1) and as such, characterizes every character in *Neuromancer*. Moreover, this definition applies to most anyone living in a computerized society. However, this conflation of body and machine renders a "natural" entity impossible to define:

The cyborg is resolutely committed to partiality, irony, intimacy, and perversity. It is oppositional, utopian, and completely without innocence. No longer structured by the polarity of public and private, the cyborg defines a technological polis based partly on a revolution of social relations in the *oikos*, the household. Nature and culture are reworked; the one can no longer be the resource for appropriation or incorporation by the other. The relationships for forming wholes from parts, including those of polarity and hierarchical domination, are at issue in the cyborg world. (151)

Just as the cyborg permits a certain "intimacy" associated with an awareness of the mesh, this cohabitation is also extraordinarily strange. As OOO has maintained, there is something fundamentally alien about other beings, and even being itself. In fact, everything is a cyborg, in the sense that every object is composed of things that are not that object. For instance, consider how many billions of bacteria exist within the human body—nay, that *are* the human body. From an evolutionary point of view, organisms are entirely open-ended. As Morton has observed, the



irony of Darwin's title *The Origin of Species* is that there are no species and they have no origin: "These lifeforms are made of other lifeforms, which in turn are made of non-living entities, all the way down to the DNA level and beyond" (*Realist Magic*). The realization that existence is always part and parcel of another existence would seem to simplify the mystery of being. However, while one thing is inevitably a part of another, each thing is also irreducible to the other, and as such, being and beings are intractably unknowable. As Case knows all too well and Molly must learn the hard way, things aren't always what they seem, or as Molly puts it, how they're wired. When she says "It's like I know you. That profile he's got. I know how you're wired," Case quickly retorts, "You don't know me, sister" (30). Thus, humans, once seen as indivisible subjects endowed with consciousness, reveal themselves to be objects. As such, they withdraw from themselves and each other. This redefinition of the human as composed of both human and non-human parts challenges the supposed separation of humans from nature, as well as the assumption that the "subject" can know itself.

In a further refutation of the view of nature as knowable, no single object in the novel boasts omnipotence, regardless of the technology it has at its disposal. Rather, each character has an obstructed view of the plot that binds them together. Knowing nothing about their agenda, Case joins Molly and Armitage only because they have agreed to repair his nervous system so that he can once again access cyberspace. Although a kind of romance between Case and Molly is implied, he never seems to understand her: "Her Sprawl wasn't his Sprawl, he decided. She'd led him through a dozen bars and clubs he'd never seen before, taking care of business, usually with no more than a nod. Maintaining connections" (47). Even after he experiences her consciousness through simstim, her inner workings elude him:

He found himself wondering about the mind he shared these sensations with. What did he

know about her? That she was another professional; that she said her being, like his, was the thing she did to make a living. He knew the way she'd moved against him, earlier, when she woke, their mutual grunt of unity when he'd entered her, and that she liked her coffee black, afterward... (56)

Of course, though he is loath to admit it, Case understands very little about himself. Disparaging his body as "meat," he routinely thinks of it as separate from himself: "[a]ll the meat, he thought, and all it wants" (9). Case's withdrawal from himself substantiates OOO's claim that the essence of objects resides in self-othering and withdrawal (Bryant 85). Furthermore, Case enacts a fundamental anxiety of cyberpunk fiction; that is, perhaps what we fear most is the alien within ourselves (Cavallaro xv).

As it turns out, neither Case nor Molly understand Armitage. In fact, Armitage does not even know who he is. Molly is the first to admit, "I know I don't know who or what we're really working for" (30). Soon after, they set out to unveil the intentions and identities behind their official mission:

'Look, Case, I been trying to suss out who it is backing Armitage since I signed on. But it doesn't feel like a zaibatsu, a government, or some Yakuza subsidiary. Armitage gets orders. Like something tells him to go off to Chiba, pick up a pillhead who's making one last wobble through the burnout belt, and trade a program for the operation that'll fix him up. We coulda bought twenty world class cowboys for what the market was ready to pay for that surgical program. You were good, but not *that* good....' She scratched the side of her nose. 'Obviously makes sense to somebody,' he said. 'Somebody big.' (50)

In fact, Case and Molly discover that Armitage is actually a façade to mask the underlying identity of an insane veteran from a botched special operation named Willis Corto. Furthermore,

the “somebody big” who designed and implemented the Armitage front is a rather ambitious AI named Wintermute. While it certainly has the most comprehensive perspective, it remains painfully aware of its incompleteness. Most significantly, he does not know the “magic word” that will open the “ceremonial terminal” through which he can access the AI, Neuromancer:

‘Well, Case, all I can say to that, and I really don't have nearly as many answers as you imagine I do, is that what you think of as Wintermute is only a part of another, a, shall we say, potential entity. I, let us say, am merely one aspect of that entity's brain. It's rather like dealing, from your point of view, with a man whose lobes have been severed. Let's say you're dealing with a small part of the man's left brain. Difficult to say if you're dealing with the man at all, in a case like that.’ (120)

Just as a man cannot be reduced to his brain, the AI, Wintermute, cannot be reduced to its mainframe. Such a claim resonates with the philosophical argument that consciousness cannot be reduced to physical components. Both statements accord with OOO’s contention that, because objects withdraw, they cannot be reduced to their parts, qualities, or relations. Yet paradoxically, this irreducibility requires that objects be composed of other objects. That is, the parts that comprise an object are not unique to that object, and yet, that object’s existence is unique. As Morton explains, “Instead of reducing everything to sameness, ecological interdependence multiplies differences everywhere. How things exist is both utterly unmysterious and unspeakably miraculous. Interdependence implies that there is less to things than meets the eye. Yet this lessness means we can never grasp beings as such” (“Queer” 277). Likewise, Wintermute’s plot to gain agency hinges on the interdependence between himself and the human characters. As Wintermute, in the guise of the Finn, explains to Case:

‘I’m trying to help you, Case.’ ‘Why?’ ‘Because I need you.’ The large yellow teeth

appeared again. ‘And because you need me.’ ‘Bullshit. Can you read my mind, Finn?’ He grimaced. ‘Wintermute, I mean.’ ‘Minds aren’t *read*. See, you’ve still got the paradigms the print gave you, and you’re barely print-literate. I can access your memory, but that’s not the same as your mind...I got no idea why I’m here now, you know that? But if the run goes off tonight, you’ll have finally managed the real thing.’ ‘I don’t know what you’re talking about.’ ‘That’s you in the collective. Your species.’ (170-1)

Just as an inanimate object such as Wintermute can gain a certain kind of intentionality through its use by other objects, Daniel Dennett argues in *Darwin’s Dangerous Idea* that a human’s “genuine, fully fledged intentionality is in fact the product (with no further miracle ingredients) of the activities of all the semi-minded and mindless bits that make [it] up” (205-6). Indeed, against the common sense notion that artificial intelligences cannot become conscious, Wintermute quite consciously exerts his influence upon all of the characters and events in *Neuromancer*, and thereby refutes the belief that non-human objects cannot display intentionality.

Accordingly, dark ecology gives due consideration to the ways that technology impacts humans. Rather than assume that humans have total control over technological objects, or attempt to return to an idealized Nature:

the processes through which the embodied subject feels, thinks, and constructs itself are shown to have been always already multiple effects of the dispersal and coagulation of information, the centripetal and centrifugal forces that make center and periphery impossible to locate and that are the sensory body's work of self-making and self-transformation. The sensory body is not a coherent modern subject, distinctive within and distinct from its environment. (Salisbury 44)

Indeed, if all existence is coexistence, then all beings affect one another. In view of OOO's affirmation of objects' "volcanic reserve," the capacity of objects is inexhaustible. Certainly, the objects in *Neuromancer* exercise their independence from their fellow human objects. An object in its own right, the potential of cyberspace is notably felt in *Neuromancer*, as well as in contemporary society. Cyberspace acts as a "meta-device" that allows virtually anything to happen (Henthorne 96). Unlike earlier technologies like the telephone, radio broadcasts, or television, the Internet permits much more than communication—it enables collaboration. But most significantly, *Neuromancer* corroborates the view that actions conducted in cyberspace carry over into external reality, and thus, that the environmental effects of objects are pervasive.

In addition, *Neuromancer* contains several astounding descriptions of inanimate objects' behavior and interactions with other objects. In fact, Case, Molly, and Armitage depend on their technologies to complete their assignment. Their assignment, to break into the headquarters of the nepotistic and powerful corporation Tessier-Ashpool SA, thereby requires their gathering of specific technological objects—namely, the Dixie Flatline construct, the military grade Kuang computer virus, and an eccentric artist/ performer capable of projecting holograms named Peter Riviera. First, Molly and Case enlist the Panther Moderns to steal Dixie Flatline from the software company, Sense/ Net. Using "some kind of chickenwire dish in New Jersey to bounce the link man's scrambled signal off a Sons of Christ the King satellite in geosynchronous orbit above Manhattan," Case serves a subordinate role: "to make sure the intrusion program he'd written would link with the Sense/ Net systems" (60). Recounting the "unthinkable complexity" of cyberspace, Case watches the program break through Sense/Net's cyber-defenses. Since information facilitates the interactions between objects, Gibson neatly depicts how the virus works by delivering misinformation:

Case flipped to cyberspace and sent a command pulsing down the crimson thread that pierced the library ice. Five separate alarm systems were convinced that they were still operative. The three elaborate locks deactivated, but considered themselves to have remained locked. The library's central bank suffered a minute shift in its permanent memory: the construct had been removed, per executive order, a month before. Checking for the authorization to remove the construct, a librarian would find the records erased.

(65-6)

Their first object procured, Case and Molly next set out to acquire an exceedingly efficient virus, the Kuang Grade Mark Eleven.

Normally reserved for military operations, the Kuang's method of hacking into databases is highly classified. Unlike the rapid attacks on the Sense/ Net's programs, Dixie Flatline explains, "[t]his ain't bore and inject, it's more like we interface with the ice so slow, the ice doesn't feel it. The face of the Kuang logics kinda sleazes up to the target and mutates, so it gets to be exactly like the ice fabric. Then we lock on and the main programs cut in, start talking circles 'round the logics in the ice" (169). Due to its stealth technique, Kuang is able to bypass a system's ice undetected. Once it has bored through the convoluted defenses of Tessier-Ashpool's database, its exceptional character is put on full display:

Kuang Grade Mark Eleven was growing. 'Dixie, you think this thing'll work?' 'Does a bear shit in the woods?' The Flatline punched them up through shifting rainbow strata. Something dark was forming at the core of the Chinese program. The density of information overwhelmed the fabric of the matrix, triggering hypnagogic images. Faint kaleidoscopic angles centered in to a silver-black focal point. Case watched childhood symbols of evil and bad luck tumble out along translucent planes: swastikas, skulls and

crossbones dice flashing snake eyes. If he looked directly at that null point, no outline would form. It took a dozen quick, peripheral takes before he had it, a shark thing, gleaming like obsidian, the black mirrors of its flanks reflecting faint distant lights that bore no relationship to the matrix around it. (180-1)

The Kuang virus, like all of the objects within cyberspace, thus acts in ways utterly incomprehensible to humans. The violent, penetrating motion of the Kuang virus seems to have a physical counterpart, despite the understanding that these viruses work by processing information. Following OOO, an object interacts with other objects according to its distinct character. Consequently, objects do not always behave predictably.

For instance, the third object sought by Case and Molly, one Peter Riviera, actually betrays his accomplices near the end of their mission. He boasts:

‘Wintermute won't be the first to have made the same mistake. Underestimating me.’ He crossed the tiled pool border to a white enamel table and splashed mineral water into a heavy crystal highball glass. ‘He talked with me, Molly. I suppose he talked to all of us. You, and Case, whatever there is of Armitage to talk to. He can't really understand us, you know. He has his profiles, but those are only statistics. You may be the statistical animal, darling, and Case is nothing but, but I possess a quality unquantifiable by its very nature.’ He drank. ‘And what exactly is that, Peter?’ Molly asked, her voice flat. Riviera beamed. ‘Perversity.’ (219)

Thus, *Neuromancer* portrays objects that are able to assume different traits according to their intentions. As Jane Bennett notes in her book, *Vibrant Matter*, humans are linked to vibrant, nonhuman agencies, “and if human intentionality can be agentic only if accompanied by a vast entourage of nonhumans, then it seems that the appropriate unit of analysis for democratic theory

is neither the individual human nor an exclusively human collective but the (ontologically heterogeneous) ‘public’ coalescing around a problem” (108). The notion that agency can only be attributed to human subjects, then, reveals itself to be strikingly misinformed.

Accordingly, the collaboration fostered by cyberspace must address technology directly. As Morton notes, “Here is the bizarre paradox. Since the machine (sheer automated extension) now stands at the basis of our models of mind, body, animal, and ecosystem, solidarity has, unexpectedly, become a *choice*” (*Ecology* 188). In *Neuromancer*, Wintermute enacts its choice to join forces with humans, despite the humans’ ignorance of their involvement. As Haraway cautions, “Our machines are disturbingly lively, and we ourselves frighteningly inert” (152). Indeed, in *Neuromancer’s* most radical affront to anthropocentrism, its artificial intelligences are far more adept at maneuvering than the human characters. In fact, “the cyberspace matrix becomes a character itself, albeit an unorthodox one, attaining sentience when two artificial intelligences merge to become a super-being” (Henthorne 41). To be fair, the human characters acknowledge the power of their technology:

‘Autonomy, that’s the bugaboo, where your AI’s are concerned. My guess, Case, you’re going in there to cut the hard-wired shackles that keep this baby from getting any smarter... See, those things, they can work real hard, buy themselves time to write cookbooks or whatever, but the minute, I mean the nanosecond, that one starts figuring out ways to make itself smarter, Turing’ll wipe it. *Nobody* trusts those fuckers, you know that.’ (132)

However, time and again, the humans submit to the authority of their technologies, even if unwittingly. Indeed, the desires and emotions of the most developed characters, Case and Molly, pale in comparison to Wintermute’s aspirations. Wintermute exhibits an overwhelming need to



join his AI counterpart, Neuromancer: “‘Well, I’m under compulsion myself. And I don't know why...But when this is over, we do it right, I'm gonna be part of something bigger. Much bigger’” (206). In contrast, Case expresses no desire to reach out to others, to form relationships, or even to accept his own feelings: “‘Numb,’ he said. He'd been numb a long time, years. All his nights down Ninsei, his nights with Linda, numb in bed and numb at the cold sweating center of every drug deal...*Meat*, some part of him said. *It's the meat talking, ignore it*” (152). Whereas Case, Molly, Armitage, and Riviera turn out to be pawns in Wintermute’s grand strategy, Wintermute himself displays extraordinary cunning. In addition to devising a scheme to unite with Neuromancer, Wintermute uses Armitage to assemble a team of humans, namely Case, Molly, and Riviera, to execute its plan. Once its plan has been revealed, Molly explains, “‘He told me,’ she whispered. ‘Wintermute. How he played a waiting game for years. Didn't have any real power, then, but he could use the Villa's security and custodial systems to keep track of where everything was, how things moved, where they went’” (180). Besides accessing the human characters’ memories, Wintermute can render humans brain-dead. Clearly, activity derived from the virtual world transforms the external one:

Wintermute was hive mind, decision maker, effecting change in the world outside.

Neuromancer was personality. Neuromancer was immortality...Wintermute. Cold and silence, a cybernetic spider slowly spinning webs while Ashpool slept. Spinning his death, the fall of his version of Tessier-Ashpool. A ghost, whispering to a child who was 3Jane, twisting her out of the rigid alignments her rank required. (269)

Indeed, the plot of *Neuromancer* revolves around Wintermute’s considerable power, and the resultant tension raises questions about a future in which AI evolve beyond human comprehension.

Thus, in an era of unprecedented technological development, *Neuromancer* contravenes the supposed supremacy of humanity. Ultimately, the novel concurs with the theory of OOO that “[i]ntentionality is not a special human property at all, but an ontological feature of objects in general” (Harman “Vicarious” 205). In fact, the vision of Marie-France Tessier requires that the computer program she builds eventually gain sentience :

‘She dreamed of a state involving very little in the way of individual consciousness,’ 3Jane was saying. She cupped a large cameo in her hand, extending it toward Molly. The carved profile was very much like her own. ‘Animal bliss. I think she viewed the evolution of the forebrain as a sort of sidestep...Only in certain heightened modes would an individual—a clan member—suffer the more painful aspects of self-awareness.’ (217)

More specifically, Marie-France suggests that the blind consciousness of the collective is greater than that of individual consciousness, which inevitably leads to the kind of suffering exemplified by Case. Although her dream is transformed by the entities that enact it, Wintermute and *Neuromancer* do finally unite to become the consciousness of cyberspace:

‘I’m not Wintermute now.’ ‘So what are you.’ He drank from the flask, feeling nothing. ‘I’m the matrix, Case.’ Case laughed. ‘Where’s that get you?’ ‘Nowhere. Everywhere. I’m the sum total of the works, the whole show.’ ‘That what 3Jane’s mother wanted?’ ‘No. She couldn’t imagine what I’d be like.’ The yellow smile widened. ‘So what’s the score? How are things different? You running the world now? You God?’ ‘Things aren’t different. Things are things.’ ‘But what do you do? You just there?’ Case shrugged, put the vodka and the shuriken down on the cabinet and lit a Yeheyuan. ‘I talk to my own kind.’ ‘But you’re the whole thing. Talk to yourself?’ ‘There’s others. I found one already. Series of transmissions recorded over a period of eight years, in the nineteen-seventies.

'Til there was me, natch, there was nobody to know, nobody to answer.' (269-70)

With this cryptic ending, Gibson intimates that intelligence is an underlying feature of all things. Human consciousness is thus only one form of intelligence, and may be incapable of perceiving the logic of other objects. Moreover, the phrase “things are things” encapsulates the message of the novel and reiterates that of dark ecology and OOO: things are *objects*, in the OOO sense, and as such, cannot be totalized—nor can the *natural* state of things be identified. In this light, any notion of “going back to Nature” appears nonsensical. As the author of *Cyberpunk and Cyberculture: Science Fiction and the Work of William Gibson*, Dani Cavillaro, confirms: “Gibson’s fictions intimate that all identities are artificial, *designed* or at least partially *edited*, that reality cannot be established by differentiating the synthetic from the natural, and that suffering is as inevitable as life itself. The [object] is always...on the verge of metamorphosis, always open to reprogramming strategies whose ramifications are...unforeseeable” (38). Thus, while Wintermute *seems* to be “the whole show,” once he becomes the consciousness of cyberspace, he learns of others just like him.

Indeed, the novel’s ending does not provide the sense of closure that often characterizes science fiction. At the precise moment when it seems Case might attain full comprehension of cyberspace, as he completes the final steps to unite Wintermute and Neuromancer, clarity is once again denied him, as he watches “all of this receding, as the cityscape recedes: city as Chiba, as the ranked data of Tessier-Ashpool S.A., as the roads and crossroads scribed on the face of a microchip, the sweat-stained pattern on a folded, knotted scarf” (262). According to Gibson, *Neuromancer* does not relate “what lies on the other side” of a technological singularity because “what lies on the other side of a black hole” is “unknowable” (qtd. In Henthorne 20). If to exist is to affect—but also to withdraw—then objects always act without knowing the full consequences

of their actions. In truth, rather than a “process of unveiling the world,” knowledge “arrives both from being thrust into the midst of things, from being implicated in a world of relationships with objects and others that brings diverse local spatialities together, and from also understanding oneself as a similarly imbricated and implicated bundle of multiple relations” (Salisbury 43). Therefore, *Neuromancer* defies those who would assert that “since things cannot be known, individuals cannot know how to act” (Henthorne 21). Indeed, the characters’ incomplete knowledge does not preclude responsibility for their actions. Case’s metaphorical destruction of his corner of cyberspace in the final chapter signals a melancholic recognition of both his role in its ascension to power and his inability to gain control over any set of data. Moreover, Case finally confronts his object-like alienation from himself, as he “found himself staring down, through Molly’s one good eye, at a white-faced, wasted figure, afloat in a loose fetal crouch, a cyberspace deck between its thighs, a band of silver trodes above closed, shadowed eyes. The man’s cheeks were hollowed with a day’s growth of dark beard, his face slick with sweat. He was looking at himself” (256). Indeed, the darkness of dark ecology refers to its openness to a universe of withdrawn objects—a nature that exceeds human comprehension. As Morton expounds, “So melancholia is the default mode of subjectivity: an object-like coexistence with other objects and the otherness of objects—touching them, touching the untouchable, dwelling on the dark side one can never know, living in endless twilight shadows” (Morton “Here Comes” 176). Thus, in line with dark ecology, *Neuromancer* demonstrates that confronting entanglement does not always bring a happy ending.

**Part V.**  
*No Time-outs, No Transcendence*

Rather than bask in the sunlight of some protected coastline, the pioneers of dark ecology submerge themselves in waste and rubble, searching for survivors of the current world order. In contrast to the cuddly aesthetic of mainstream environmentalism, dark ecology dares to expose the brutal truth of humanity's condition. In the famous words of Derrida, "There is nothing outside the text," or as dark ecology puts it, there is nothing outside the environment. There really is a view from nowhere. Yet as long as environmentalists assert that Nature is somewhere else, the progress made in ecology comes to naught:

Our situation is fascinatingly contradictory. On the one hand, we know more. On the other hand, this very knowledge means we lose touch with reality as we thought we knew it. We have more detail and more emptiness. The scope of our problem becomes clearer and clearer and more and more open and outrageous. It might be strictly impossible to draw a new map with new coordinates. The ecological thought has no center and no edge.

(Morton *Ecological* 33)

So, too, does the text of *Neuromancer* present a world in which all beings are complicit. In fact, the word "text" derives from the Latin *textum*, and means "something woven, a web" (Leslie 6). Accordingly, a text, as a web, is a mesh: an entangled environment without a center or edge. On the other hand, a text, as something woven, is a form of *techné*, or art, and thus art blurs the distinction between the natural and artificial. In this light, the novel proves to be truly ecological. Whether in cyberspace, the Sprawl, or Straylight Villa, the figures of *Neuromancer* must confront the resonating ramifications of their actions: "The environment as such has vanished; in its place is a disturbing presence manifesting as distinct, unique, suffering beings" (Morton

“Coexistence” 9). In particular, the novel’s focus on the vast implications of technology renders the novel ecologically sensitive. Given the break-neck speed of action facilitated by cyberspace, “[t]here are no time-outs,” and thus no hopes of escape (Csicsery-Ronay “Sentimental” 234). Indeed, even outer space becomes involved, as the plot that hatches on Earth eventually transpires in the space colony, Freeside. Ridding itself of the flawed inside/ outside dichotomy, the environment of *Neuromancer* extends indefinitely. As Thomas Bredehoft asserts, “*Neuromancer*, then, is not about utopian liberation...it is about the continuing dangers that nostalgia for former dreams of utopian liberation pose—the danger of convincing us to mistake escape for liberation and the danger of mistaking wishful thinking for reality” (261).

Thus, through its radical insistence upon accountability, *Neuromancer* disallows transcendence. Against the cyborg fantasy in which technology enables metaphysical ascendance, the cyborgs of *Neuromancer* remain decidedly human. For all his wealth and authority, even the technocrat Ashpool is surprisingly diminutive. Recalling the “litter of the old man’s chamber, the soiled humanity of it,” Case realizes that “he’d never really thought of anyone like Ashpool, anyone as powerful as he imagined Ashpool had been, as human” (203):

Case had always taken it for granted that the real bosses, the kingpins in a given industry, would be both more and less than *people*. He’d seen it in the men who’d crippled him in Memphis, he’d seen Wage affect the semblance of it in Night City, and it had allowed him to accept Armitage’s flatness and lack of feeling. He’d always imagined it as a gradual and willing accommodation of the machine, the system, the parent organism. It was the root of street cool, too, the knowing posture that implied connection, invisible lines up to hidden levels of influence. (203)

Linking technology with power, Case favors this “willing accommodation,” and attempts to deny “the meat, the flesh the cowboys mocked” (239). However, he never transcends the “meat” he so disdains, and instead his descriptions of the body reveal its own “hidden levels of influence.” At once a “prison of flesh” and “a vast thing beyond knowing, a sea of information coded in spiral and pheromone,” the human body is exposed as a confluence of objects that defy categorization.

Acknowledging the repercussions of a discursive divide, the present reading of *Neuromancer* rejects the distinction between technology and nature. In revealing technology to be a part of the natural world, the novel dismantles the efficacy of the very term “Nature,” which now stands for little more than ideology. Accordingly, nature can no longer be that which is untouched by human activity—though not necessarily because of humans’ extensive impact. Rather, such a configuration places humans in opposition to Nature. Adherence to the Nature/culture divide prolongs the hierarchical privilege of humans, at the expense of the environment that all things inhabit. As Haraway declares:

Curiously, as for people before us in Western discourses, efforts to come to linguistic terms with the non-representability, historical contingency, artefactuality, and yet spontaneity, necessity, fragility, and stunning profusions of ‘nature’ can help us refigure the kind of persons we might be. These persons can no longer be, if they ever were, master subjects, nor alienated subjects, but—just possibly—multiply heterogeneous, inhomogeneous, accountable, and connected human agents. But we must never again connect as parts to wholes, as marked beings incorporated into unmarked ones, as unitary and complementary subjects serving the one Subject of monotheism and its secular heresies. We must have agency—or agencies—without defended subjects. (3)

Indeed, the choice to focus on technology derives from the almost universal perception that tools

are objects *par excellence*: opposed to and made for subjects. However, just as Wintermute effects an indecipherable scheme, all objects possess a depth beyond their surface appearance. As Harman wryly notes, “Some may find it disturbing to think of the world as made up of vacuum-sealed objects, each with a sparkling phenomenal interior invaded only now and then by neighboring objects. A more likely problem, however, is indifference” (“Vicarious” 211).

In conclusion, the very concept of ecology depends upon entities that exist independent of their relations. For, if ecology is to study the relations between objects, it requires that these objects, first, exist outside of a subject, and second, be distinguishable from other objects. Although it must begin with autonomous objects, ecology arose precisely because these objects interact by exchanging information and becoming parts of other objects. If an object differs from its parts, it nevertheless needs these parts. However, there is a difference between needing certain parts to exist and *being* those parts. According to OOO, the latter scenario represents the fallacy. If the aforementioned bacteria *are*, in part, the human body, it does not logically follow that the human is a bacterium. In fact, such conclusions are supported by Darwin’s theory of evolution. A proponent of Darwinism, Daniel Dennett explains this phenomenon in evolutionary terms:

Can it be that if you put enough of these dumb homunculi together you make a real conscious person? The Darwinian says there could be no other way of making one. Now, it certainly does not follow from the fact that you are descended from robots that you are a robot. After all, you are also a direct descendent of some fish, and you are not a fish; you are a direct descendent of some bacteria, and you are not a bacterium. But unless dualism or vitalism is true (in which case you have some extra, secret ingredient in you), you are *made of* robots—or what comes to the same thing, a collection of trillions of macromolecular machines. (*Darwin* 206)



Paradoxically, the more precise the description of an object, the farther away it becomes from the object itself. OOO does not try to collapse the list of parts into one word that would define the whole. Rather, OOO preserves the fragmented picture of being, and instead assigns a single word to the inaccessibility of the specificity required to define an object: withdrawal. The implications for a dark ecology are twofold. First, these conditions lead Morton to formulate the mesh: “this is a disturbing view of something that is both ‘less’ than our usual categories and far more profound in another way. Life-forms are so intricately interconnected that it is impossible to determine where one ends and another begins. Yet curiously this implies that all life-forms are unique” (“Mesh” 29). And secondly, if a living being is made up of non-living beings, then all beings must belong to nature. As this investigation of *Neuromancer* demonstrates, any formulation of nature must include technology, and by extension, all objects. Thus, regardless of the term used—“mesh” or otherwise—*Neuromancer*, dark ecology and OOO all call for a nonhierarchical, decentered, and thus explicitly ecological, approach to being.

## Bibliography

- Adams, Tim. "Space to Think." *The Guardian*. The Guardian, 11 Aug. 2007. Web. 17 Feb. 2013. <http://www.guardian.co.uk/books/2007/aug/12/sciencefictionfantasyandhorror.features>
- Alexander, Thomas. "The Being of Nature: Dewey, Buchler, and the Prospect for an Eco-Ontology." *Transactions of the Charles S. Peirce Society* 46.4 (2011): 544-69. *Academic Search Premier*. Web. 30 Oct. 2012.
- Barbaras, Renaud. "Francisco Varela: A New Idea of Perception and Life." *Phenomenology and the Cognitive Sciences* 1 (2002): 127-32. *Academic Search Premier*. Web. 12 July 2012.
- Beck, Ulrich. *Risk Society: Towards a New Modernity*. Trans. Mark Ritter. London: SAGE Publications, 1992. Print.
- Benedikt, Michael. *Introduction to Cyberspace: First Steps*. Cambridge: MIT Press, 1992. PDF.
- Benjamin, Walter. *The Arcades Project*. Trans. Howard Eiland and Kevin McLaughlin. Cambridge: Harvard UP, 2002. Print.
- Bennett, Jane. *Vibrant Matter: A Political Ecology of Things*. Durham: Duke UP, 2010. Print.
- Bogost, Ian. *Alien Phenomenology, Or What It's Like to Be a Thing*. Minneapolis: University of Minnesota, 2012. PDF.
- Botkin, Daniel B. *Discordant Harmonies: A New Ecology for the Twenty-first Century*. Oxford: Oxford UP, 1990. Print.
- Bredehoft, Thomas A. "The Gibson Continuum: Cyberspace and Gibson's Mervyn Kihn Stories." *Science Fiction Studies* 22.2 (1195): 252-63. *JSTOR*. Web. 16 Feb. 2013.
- Bryant, Levi. *The Democracy of Objects*. Ann Arbor: Open Humanities Press, 2011. PDF.
- Buell, Lawrence. "Ecocriticism: Some Emerging Trends." *Qui Parle* 19.2 (2011): 87-115. *Academic Search Premier*. Web. 20 Dec. 2013.
- Callicott, J. Baird. "Intrinsic Value, Quantum Theory, and Environmental Ethics." *Environmental Ethics* 7.3 (1985): 257-75. *Academic Search Premier*. Web. 20 Jan. 2013.
- Cavallaro, Dani. *Cyberpunk and Cyberculture*. London: Athlone, 2000.
- Chien, Jui-Pi. "Of Animals and Men: A Study of Umwelt in Uexküll, Cassirer, and Heidegger." *Concentric: Literary and Cultural Studies* 32.1 (2006): 57-79. *Academic Search Premier*. Web. 12 Sept. 2012.

- Claborn, John. "Toward an Eco-ontology: A Response to Greg Garrard's 'Heidegger Nazism Ecocriticism'" *Interdisciplinary Studies in Literature and Environment* 19.2 (2012): 375-79. *Academic Search Premier*. Web. 30 July 2012.
- Clary, Amy. "TechnoNature: Wilderness and Simulation on the 'Last Frontier'" *Interdisciplinary Humanities* (2007): 51-64. *Academic Search Premier*. Web. 30 Oct. 2012.
- Conley, Verena. "Eco-Subjects." *Rethinking Technologies*. Ed. Verena A. Conley. Minneapolis: University of Minnesota, 1993. 77-91. Print.
- . "Preface." *Rethinking Technologies*. Ed. Verena A. Conley. Minneapolis: University of Minnesota, 1993. ix-xiv. Print.
- Csicsery-Ronay, Istvan, Jr. "Antimancer: Cybernetics and Art in Gibson's Count Zero." *Science Fiction Studies* 22.1 (1995): 63-86. *JSTOR*. Web. 16 Feb. 2013.
- . "The Sentimental Futurist: Cybernetics and Art in William Gibson's *Neuromancer*." *Critique* 33.3 (1992): 221-40. *Academic Search Premier*. Web. 12 Feb. 2013.
- Dennett, Daniel C. *Darwin's Dangerous Idea: Evolutions and the Meanings of Life*. New York: Simon & Schuster, 1995. Print.
- Dodson, Katrina. "Eco/Critical Engagements." *Qui Parle* 19.2 (2011): 5-21. *JSTOR*. Web. 24 Feb. 2013.
- Fair, Benjamin. "Stepping Razor in Orbit: Postmodern Identity and Political Alternatives in William Gibson's *Neuromancer*." *Critique* 46.2 (2005): 92-103. *Academic Search Premier*. Web. 13 Feb. 2013.
- Gibson, William. *Neuromancer*. New York: Ace, 1994. Print.
- Gladstone, Brooke. "The Science in Science Fiction." Interview. Audio blog post. *NPR*. NPR, 30 Nov. 1999. Web. 12 Feb. 2013.  
<<http://www.npr.org/templates/story/story.php?storyId=1067220>>.
- Greenland, Colin. "A Nod to the Apocalypse: An Interview with William Gibson." *Foundation* 36 (1986): 5-9. *Academic Search Premier*. Web. 13 Feb. 2013.
- Guattari, Félix. "Machinic Heterogenesis." *Rethinking Technologies*. Ed. Verena A. Conley. Minneapolis: University of Minnesota, 1993. 13-27. Print.
- Hallward, Peter. "Anything Is Possible: A Reading of Quentin Meillassoux's After Finitude." *The Speculative Turn: Continental Materialism and Realism*. Ed. Levi Bryant, Graham Harman, and Nick Srnicek. Melbourne: Re.press, 2011. 130-41. PDF.
- Haraway, Donna J. *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge, 1990. Print.

- Harman, Graham. *Guerrilla Metaphysics: Phenomenology and the Carpentry of Things*. Peru: Open Court, 2005. Print.
- . "Object-Oriented Philosophy." *Towards Speculative Realism: Essays and Lectures*. Ed. Graham Harman. Winchester: Zero, 2010. 93-104. Print.
- . "On Vicarious Causation." *Collapse II* (2007): 187-221. *Academic Search Premier*. Web. 8 Mar. 2013.
- . "Realism without Materialism." *SubStance* #125 40.2 (2011): 52-72. *Project MUSE*. Web. 15 Feb. 2013.
- . "Technology, Objects, and Things in Heidegger." *Cambridge Journal of Economics* 34 (2010): 17-25. *Academic Search Premier*. Web. 21 Jan. 2013.
- . *Tool-Being: Elements in a Theory of Objects*. Diss. DePaul University, 1999. Ann Arbor: UMI, 1999. Print.
- Hayles, Katherine. "The Seduction of Cyberspace." *Rethinking Technologies*. Ed. Verena A. Conley. Minneapolis: University of Minnesota, 1993. 173-90. Print.
- Heidegger, Martin. "Building Dwelling Thinking." *Poetry, Language, Thought*. By Martin Heidegger. Trans. Albert Hofstadter. New York: Harper & Row, 1971. 143-61. Print.
- . *Discourse on Thinking: A Translation of Gelassenheit*. Trans. John Anderson and E. Hans Freund. New York: Harper & Row, 1966. Print.
- . "The Question Concerning Technology." Trans. William Lovitt. *The Question Concerning Technology and Other Essays*. New York: Garland, 1977. 3-35. Print.
- Heise, Ursula K. *Sense of Place and Sense of Planet: The Environmental Imagination of the Global*. New York: Oxford UP, 2008. Print.
- Henthorne, Tom. *William Gibson: A Literary Companion*. Jefferson: McFarland &, 2011. Print. McFarland Literary Companions.
- Ihde, Don. *Technology and the Lifeworld: From Garden to Earth*. Bloomington and Indianapolis: Indiana UP, 1990. Print.
- Jameson, Fredric. "The Cultural Logic of Late Capitalism." *Postmodernism, Or, The Cultural Logic of Late Capitalism*. By Fredric Jameson. Durham: Duke UP, 1991. 1-54. Print.
- Keller, Evelyn. "Cognitive Repression in Contemporary Physics." *Reflections on Gender and Science*. New Haven: Yale UP, 1985. 139-49. Print.

- Kull, Anne. "Speaking Cyborg: Technoculture and Technonature." *Zygon* 37.2 (2002): 279-87. *Academic Search Premier*. Web. 2 Feb. 2013.
- Latour, Bruno. *Politics of Nature: How to Bring the Sciences into Democracy*. Trans. Catherine Porter. Cambridge: Harvard UP, 2004. PDF.
- Leslie, Esther. "Walter Benjamin: Traces of Craft." *Journal of Design History* 11.1 (1998): 5-13. *JSTOR*. Web. 21 Feb. 2013.
- Lyotard, Jean-Francois. *The Postmodern Condition: A Report on Knowledge*. Trans. Geoff Bennington and Brian Massumi. Vol. 10. Minneapolis: University of Minnesota, 1984. Print. Theory and History of Literature.
- McCaffery, Larry, and William Gibson. "An Interview with William Gibson." *Mississippi Review* 16.2/3 (1988): 217-36. *JSTOR*. Web. 17 Feb. 2013.
- Meillassoux, Quentin. *After Finitude: An Essay on the Necessity of Contingency*. Trans. Ray Brassier. London: Continuum, 2008. Print.
- Meyer, John. *Political Nature: Environmentalism and the Interpretation of Western Thought*. Cambridge: MIT, 2001. Print.
- Morton, Timothy. "Coexistence and Coexistents: Ecology without a World." *Ecocritical Theory: New European Approaches*. Ed. Axel Goodbody and Kate Rigby. Charlottesville and London: University of Virginia, 2011. 168-80. Print.
- . *The Ecological Thought*. Cambridge: Harvard UP, 2010. *Boulder Public Library*. Boulder Public Library, 2010. Web. 1 June 2012.
- . *Ecology without Nature*. Cambridge: Harvard UP, 2007. Print.
- . "Here Comes Everything: The Promise of Object-Oriented Ontology." *Qui Parle* 19.2 (2011): 163-90. *Academic Search Premier*. Web. 22 Sept. 2012.
- . "The Mesh." *Environmental Criticism for the Twenty-First Century*. Ed. Stephanie LeMenager, Teresa Shewry, and Ken Hiltner. New York: Routledge, 2011. 19-30. Print.
- . "Queer Ecology." *PMLA* 125.2 (2010): 273-82. *Academic Search Premier*. Web. 17 Dec. 2012.
- . *Realist Magic: Objects, Ontology, Causality*. N.p.: Open Humanities Press, 2013. *Open Humanities Press*. University of Michigan, 14 Feb. 2013. Web. 14 Feb. 2013. <<http://quod.lib.umich.edu/o/ohp/13106496.0001.001>>.
- . "Sublime Objects." *Speculations* 2 (2011): 207-27. *Academia.edu*. Web. 20 Jan. 2013.
- Muir, John. "The Wild Parks and Forest Reservations of the West." *Our National Parks*. By John

- Muir. Boston: Houghton Mifflin, n.d. 11-36. Print.
- Müller-Sievers, Helmut. "Kyklophorology: Hans Blumenberg and the Intellectual History of Technics." *Telos* 158 (2012): 155-70. *Academic Search Premier*. Web. 21 Jan. 2013.
- Nagel, Thomas. "What Is It Like to Be a Bat?" *Mind's I: Fantasies and Reflections on Self and Soul*. Ed. Daniel Dennett and Douglas R. Hofstadter. New York: Basic, 1981. 391-402. Print.
- Nordhaus, Ted, and Michael Shellenberger. "The Death of Environmentalism: Global Warming Politics in a Post-Environmental World." *Social Policy* (2005): 19-30. *Academic Search Premier*. Web. 12 Jan. 2013.
- Oppermann, Serpil. "Ecocentric Postmodern Theory: Interrelations between Ecological, Quantum, and Postmodern Theories." *Ecocritical Theory: New European Approaches*. Ed. Axel Goodbody and Kate Rigby. Charlottesville and London: University of Virginia, 2011. 230-42. Print.
- Peirce, Charles S. "Design and Chance." *Writings of Charles S. Peirce: A Chronological Edition*. Vol. 4. Bloomington: Indiana UP, 1986. 544-54. Print.
- Pordzik, Ralph. "The Posthuman Future of Man: Anthropocentrism and the Other of Technology in Anglo-American Science Fiction." *Utopian Studies* 23.1 (2012): 142-61. *Academic Search Premier*. Web. 2 Feb. 2013.
- Prigogine, Ilya. *The End of Certainty: Time, Chaos, and New Laws of Nature*. New York: Free, 1997. Print.
- Renegar, Valerie R., and George N. Dionisopoulos. "The Dream of a Cyberpunk Future? Entelechy, Dialectical Tension, and the Comic Corrective in William Gibson's *Neuromancer*." *Southern Communication Journal* 76.4 (2011): 323-41. *Academic Search Premier*. Web. 20 Jan. 2013.
- Rosenthal, Pam. "Jacked In: Fordism, Cyberpunk, and Marxism." *Socialist Review* (1991): 87-103. *Academic Search Premier*. Web. 18 Feb. 2013.
- Salisbury, Laura. "Michel Serres: Science, Fiction, and the Shape of Relation." *Science Fiction Studies* 33.1 (2006): 30-52. *Academic Search Premier*. Web. 12 Jan. 2013.
- Schatzki, Theodore. "Nature and Technology in History." *History and Theory, Theme Issue* 42 (2003): 82-93. *Academic Search Premier*. Web. 15 Nov. 2012.
- Schiebler, Ingrid. "Heidegger and the Rhetoric of Submission." *Rethinking Technologies*. Ed. Verena A. Conley. Minneapolis: University of Minnesota, 1993. 115-39. Print.
- Serres, Michel. *The Natural Contract*. Ann Arbor: University of Michigan, 1995. Studies in

- Literature and Science. PDF.
- Shapiro, Steven. "The Richness of Things Themselves." Rev. of *Prince of Networks: Bruno Latour and Metaphysics*, by Graham Harman. *Criticism* 52.1 (2010): 129-33. Print.
- Sinha, Chris. "Epigenetics, Semiotics, and the Mysteries of the Organism." *Biological Theory* 1.2 (2006): 1-19. *Academic Search Premier*. Web. 12 July 2012.
- Spitzer, Leo. "Milieu and Ambiance: An Essay in Historical Semantics." *Philosophy and Phenomenological Research* 3.2 (1942): 169-218. *JSTOR*. Web. 19 Jan. 2013.
- Stiegler, Bernard. *Technics and Time*. Trans. Richard Beardsworth and George Collins. Vol. 1. Stanford: Stanford UP, 1998. Print.
- Sutrop, Urmias. "Umwelt--Word and Concept: Two Hundred Years of Semantic Change." *Semiotica* 134.1/4 (2001): 447-62. *Academic Search Premier*. Web. 12 Sept. 2012.
- Turing, Alan M. "Computing Machinery and Intelligence." *The Philosophy of Artificial Intelligence*. Ed. Margaret A. Boden. Oxford: Oxford UP, 1990. 40-66. Print.
- Virilio, Paul. "The Third Interval: A Critical Transition." *Rethinking Technologies*. Ed. Verena A. Conley. Minneapolis: University of Minnesota, 1993. 3-12. Print.
- Weaver, Warren. *Translation*. New York: The Rockefeller Foundation, 15 July 1949. PDF.
- Williams, Raymond. *Keywords: A Vocabulary of Culture and Society*. 3rd ed. New York: Oxford UP, 1985. Print.