

Network Aesthetics:
American Fictions in the Culture of Interconnection

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Dissertation submitted in partial fulfillment of
the requirements for the degree of Doctor of Philosophy
in the Department of English
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ABSTRACT

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Abstract

Following World War II, the network emerged as both a major material structure and one of the most ubiquitous metaphors of the globalizing world. Over subsequent decades, scientists and social scientists increasingly applied the language of interconnection to such diverse collective forms as computer webs, terrorist networks, economic systems, and disease ecologies. The prehistory of network discourse can be traced back to descriptions of cellular formations in the seventeenth and eighteenth centuries and the invention of the electrical telegraph in the nineteenth century. Even so, it was not until the 1940s that researchers and writers began to rely on a more generalized network vocabulary to reflect fledgling material modes of interlinked organization and construct a new postwar vision of the world.

Since the 1970s, the field of network science has given rise to an even wider range of research on complexity, self-organization, sustainability, group interactions, and systemic resilience. Scientists such as Albert-László Barabási have studied network design and new media critics such as Alexander Galloway have addressed network ontology. This dissertation contends that to grasp the effects of networks on globalization, we must also look at the fears, hopes, and affects that they generate. While network scientists have been less concerned with the cultural fears, political investments, and changes in human subjectivity signaled by networks, my study of

American literature focuses on writers, filmmakers, and media innovators who have captured the deep transformations of the era of interconnection. These artists have achieved insights about networks not through scientific analysis, but through aesthetic, narrative, and media-specific experimentation.

Network Aesthetics examines how contemporary American literature, film, television, and new media dramatize the affects — alternatively terrifying and thrilling — of interconnection. This interdisciplinary project combines numerous methodologies, including literary analysis, media studies, cultural criticism, and political theory. Given the importance of networks to representation, communication, and computing, these structures serve as an ideal hinge for operating intermedia exchanges. Using varied tools, I analyze terrorist networks (Stephen Gaghan's *Syriana*), financial systems (Don DeLillo's *Underworld*), computer webs (Marge Piercy's *He, She, and It*), neoimperial networks (Thomas Pynchon's *Gravity's Rainbow*), social networks (David Simon's *The Wire*), and interactive game networks (Persuasive Games' *Killer Flu*). In the end, I argue that obsessions with abstract network threats and solutions reveal a change in the most dramatic social protocols of our connected world. Understanding how networks have formally come to evoke fear can help us grow less susceptible to an American politics of terror and more able to act justly as we negotiate our interconnected world.

For Irus, my mother, teacher, and friend, who infected me with her fierce curiosity about the world and, through her boundless love, helped me believe in the interconnectedness of all things.

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Acknowledgements

A common perception of the process of dissertation writing is that it takes place in studious isolation, that it requires a focus achieved through a hermitical withdrawal from the world. Few substantive projects, however, emerge from such seclusion. The pages I've written came not from quiet reflection, but from countless conversations, ranging from the deliberate to the turbulent, with a community of advisors, friends, and family members without whom this dissertation would be little more than a series of disjointed fragments. Without these people, their generative ideas and unwavering support, this project would lack the meaning that derives from interconnection. Simply put, these people make up the most prominent hubs of my life's network.

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Introduction: The Emergence of Network Culture

The global network is only the newest form of revolution, I think. Maybe it's the only revolution we're addicted to.

— Ellen Ullman, *Close to the Machine*

In the middle of the twentieth century, the network emerged as the principal architecture and most multivalent metaphor of the globalizing world. During the historical period that Americans have dubbed the “era of globalization,” scientists, politicians, journalists, and artists have increasingly framed the world in terms of the interconnection of people and nations; machines and economies; transportation hubs and computer systems. Around the world, networks have become positively ubiquitous.¹ It is not simply the most commonly named communication network, the Internet, which inspires the contemporary imagination of a concatenated world. In recent years, the language of interconnection has started to frame such diverse collective forms as terrorist networks, economic systems, social networks, disease ecologies, and computer webs. The science of networks — the study of interlinked

¹ New media — the media forms that are co-emergent with contemporary communications networks — depend on a similar mode of ubiquity. Alexander Galloway and Eugene Thacker argue, “New media are not just emergent, but more importantly, they are everywhere — or at least that is part of their affect. Computers, databases, networks, and other digital technologies are seen to be foundational to contemporary notions of everything from cultural identity to war.... Within First-World nations, this everydayness — this banality of the digital — is precisely what produces the effect of ubiquity, and of *universality*” (20).

and distributed structures — has significantly influenced disciplines that include economics, biology, informatics, neurology, epidemiology, and sociology. The gradual transformation of networks into objects of military, corporate, and academic study indicates that these structures are integral to the fundamental ways we understand contemporary life.²

In its most generalized form, a network is a structure made up of groups of “nodes” that are interconnected by “links.” The best connected of these central nodes are called “hubs.”³ Fundamentally, the form of the network departs from the organizational schemes of classical centralized systems and traditional hierarchies. Instead, contemporary networks depend on decentralized or distributed modes of operation that enable perpetual transformations. Although there are several types of networks, the primary characteristics shared by these structures are openness,

² Aura Reggiani and Daniele Fabbri foreground the range of network science when they note that network theory “has become the ‘key’ universal concept in several disciplines, such as economics, geography, transportation, operational research and spatial/social sciences. In the light of current *transformation* processes, networks can be identified as a blend of ‘interdisciplinary’ concepts, including complex systems, space-time dynamics, self-organization, synergy, interconnectivity, sustainability, resilience” (xvii). As Albert-László Barabási also observes, our understanding of networks now extends to systems as diverse as “the economy, the cell, and the Internet” (8). For a similar argument about the ubiquity of the network form, see: Mark Buchanan’s *Nexus: Small Worlds and the Groundbreaking Theory of Networks*.

³ Particular nodes and links can consist of practically any elements or actors. M. E. J. Newman, Albert-László Barabási, and Duncan J. Watts contend, “In its simplest form, a network is nothing more than a set of discrete elements (the vertices), and a set of connections (the edges) that link the elements, typically in a pairwise fashion” (2). Indeed, the abstracted structure of the network has become one of the most generalized models of the twentieth and twenty-first centuries.

flexibility, extensibility, and an interdependence of individual parts.⁴ As sociologist Manuel Castells puts it, a network is “susceptible to innovating without threatening its balance” (470). Regardless of its nodal composition, a network is never a static structure; it depends on an active flow among interlinked vertices. In this sense, online access or interconnected operability is not merely a possible state, but a necessary and defining condition of any network.⁵

Along with a growing conceptual interest in the composition of network structures and the proliferation of material webs such as the Internet, there has been a parallel expansion of awareness of the network as a key cultural form since the 1940s. This dual interest reveals the network to be a configuration that is, at once, structural and metaphoric, physical and discursive. While media scholars have debated whether networks should be analyzed as primarily material or cultural

⁴ A network’s type is distinguished by the size of the structure, the types of ties of which it is composed, and the density of the structure. Different types of networks include a chain or line networks (series of points in a single line), hub or wheel networks (as with telephone companies or commercial airlines), and clique or full matrix networks (communities where everyone speaks the same language) (Grewal, 183). Alexander Galloway produces a similar categorization of network types. Historically, he charts a movement from centralized to decentralized to distributed networks. Centralized networks include the American judicial system and Foucault’s hierarchal model of the Panopticon. Decentralized networks include the airline system with its multiple hubs. Finally, distributed network include Deleuze and Guattari’s concept of the “rhizome,” the interstate highway system, and the Internet (Galloway, *Protocol*).

⁵ That is, while one might imagine a *potential* network, an *inactive* network is a contradiction in terms. For more on “living networks,” see: Alexander Galloway and Eugene Thacker, *The Exploit: A Theory of Networks*.

structures, these aspects are inextricably interrelated and mutually constructive.⁶ The contemporary language of networks registers material developments in global organization, such as the greater interdependence among national economies or global communications infrastructures, but it also promotes a new vision of the world. Despite the tendency toward abstraction that accompanied the linguistic turn in the humanities, culture and language have a concrete existence that is never independent from material webs of social relations.⁷ Networks are physical and organizational technologies, but they are equally conceptual and linguistic structures. As networks have been transformed into classified entities (e.g., terrorist networks targeted by the U.S. military), objects of science (e.g., viral networks studied by systems biologists), and trendy marketing catchphrases (e.g., Cisco's slogan "Welcome to the human network"), their cultural aspects have become more pronounced.

Through a study of network aesthetics and interconnected forms, this dissertation attends to both the material and cultural dimensions of networks. My reading of network representations in literature, film, and new media explores a

⁶ For an extended argument in favor of discussing networks in material terms, see: Alexander Galloway's *Protocol: How Control exists After Decentralization*.

⁷ For a careful critique of the non-materialist linguistic focus in poststructuralism and contemporary critical theory, see: Teresa L. Ebert's *The Task of Cultural Critique*.

structure that has become a fundamental principle of American life from the end of World War II to the early years of the twenty-first century. The literary and cultural works that I analyze, including Don DeLillo's novel *Underworld*, Stephen Gaghan's film *Syriana*, David Simon's television show *The Wire*, and the Persuasive Games interactive title *Killer Flu*, all explore different aspects of the contemporary move toward increased decentralization. Unlike many scientific studies about networks, these artistic productions, which are simultaneously invested in character development and an understanding of structure, engage with the emergent affects and emotions that accompany the widespread interest in interconnection.

0.1 Networks in Language, Science, and Culture

While networks take on a new significance in the contemporary period, these structures have a long linguistic, scientific, and cultural history. A review of these genealogies is a necessary prerequisite to a study of the affects and aesthetics that characterize contemporary networks. An etymological perspective may not tell the entire story but it serves as a useful starting point, demonstrating the conceptual scope of networks across disciplines and historical periods. The word "network" — an amalgamation of the Old English words *net* and *weorc* — emerged in the sixteenth century at which time it referred to a piece of work, such as manufactured fabric, in

which threads or wires were interlaced into an intersecting arrangement.⁸ Later, in the seventeenth and eighteenth centuries, the word was extended from nonliving arrangements to ecologies of living systems. In this period, it came to describe biological phenomena such as cellular formations. It was not until the nineteenth century that the connotations of “network” edged closer to taking on the primary meanings frequently applied to present-day systems and nonhuman structures.⁹ For the first time, in the 1800s, the word “network” was recorded in reference to a large variety of complex netlike technological systems made up of human actors and nonhuman actants, including interconnected business organizations, transportation routes, telecommunications lines, and electrical structures (*Oxford English Dictionary*).¹⁰ Although networks in the nineteenth century already included certain material substrata, such as geographically extensive railways and power lines, a fully functioning informational architecture would not become available until American-led development of global networks began in the mid-to-late twentieth

⁸ It is noteworthy that, in its original usage, “network” already brings to mind the connection between an interweaved “texture” and a literary “text.”

⁹ For an analysis of the interaction between the human and nonhuman elements in a network see the work of Bruno Latour, especially *Science in Action: How to follow scientists and engineers through society*.

¹⁰ For a detailed exploration of nineteenth-century social interactions, across information, neural, and communications networks, see the work of Laura Otis, including *Networking: Communicating with Bodies and Machines in the Nineteenth Century* and *Membranes: Metaphors of Invasion in Nineteenth-Century Literature, Science, and Politics*. The latter text focuses on the medical networks surrounding nineteenth-century cell theory.

century. It is only in this recent period that such discursive objects as the “network computer” became widespread for the first time (*Oxford English Dictionary*).

Influenced (though not dictated) by the early development of the Internet in the 1980s and the popularization of the World Wide Web in the 1990s, the network took on a fuller conceptual meaning through widespread linguistic application.¹¹

The proliferation of a vocabulary of nodes and links has made the network one of the most dominant metaphors of the contemporary period. While certain continuities can be drawn between the prevailing machine metaphors of industrialism and the network metaphors of post-industrialism, the differences are noteworthy.¹² Fundamentally, network metaphors do not concern mechanical apparatuses. Rather, as literary critic Kathleen Fitzpatrick has argued, they evoke

¹¹ Despite the contemporary focus of this dissertation, I acknowledge that the contemporary word “network” is also cumulative, carrying forward many of the older meanings and resonances of the term. For this reason, when applicable, I try to be attuned to the multivalent meanings of this discursive object. Networks, even in their material and encoded manifestations, frequently preserve vestiges of the old even as they enable emergences of the new.

¹² Kathleen Fitzpatrick draws these distinctions particularly well in *The Anxiety of Obsolescence: The American Novel in the Age of Television*. Just as networks depart from the machines of industrialization, so they differ from the organizational structures at the heart of 1940s systems theory. As Fitzpatrick contends, unlike the study of ecologies and systems, which “originates in the natural, and particularly the biological sciences,” the contemporary network is imagined as “an unnatural imposition on natural systems” (152). This historical distinction is useful, but the boundaries between “natural” and “unnatural” systems in network science are also increasingly blurring. For instance, while a global viral spread could be read as a “natural” development, the apparatus of organizations and technologies established to track and curb such a proliferation might be seen as decidedly “unnatural.” Indeed, as Galloway and Thacker observe, “emerging infectious diseases are products of globalization” precisely as they depend on contemporary networks of accelerated transportation and communication for their spread (106). Especially in our moment, the unverifiable possibility of bioterrorism always complicates the causal parameters of epidemic.

“the wiring that connects them, and the impulses, both electronic and cultural, that those wires carry” (150). As Fitzpatrick further clarifies, “The network is not simply a machine but an interconnection of machines, it signals a language whereby transmitters speak to receivers” (151). Machine metaphors privilege technological objects whereas network metaphors focus on the relations among those objects. In the realm of media transformation, networks mark the shift from mechanical media — media theorist Friedrich Kittler’s triumvirate of gramophone, film, and typewriter — to electronic media such as radio, television, and the Internet.

As the etymological and metaphoric aspects of the network already suggest, this term has been heavily shaped by the history of mathematics, science, and technology. A brief conceptual and material genealogy of network development is critical to understanding this structure’s social, cultural, and aesthetic dimensions. By the late twentieth century, researchers across the sciences were investigating the properties of complex systems and relationships among individual actors, but the prehistory of network research stretches all the way back to developments in mathematical graph theory in the eighteenth century.¹³ While graph theory

¹³ In 1736, pioneering Swiss mathematician Leonhard Euler proved the impossibility of a popular riddle called “the Königsberg Bridge Problem” by using a proto-network representation called a graph. As M. E. J. Newman, Albert-László Barabási, and Duncan J. Watts explain, a graph is “a mathematical object consisting

constitutes the mathematical foundation of contemporary network science, the systematic study of interconnected structures as such is more recent, beginning in the 1940s with the interdisciplinary approach known as “General Systems Theory,” an approach proposed by Austrian biologist Karl Ludwig von Bertalanffy. As media scholar Casey Alt explains, this theory created the foundation for “a transdisciplinary science for mathematically modeling complex systems.” Serving as a response to scientific reductionism, systems theory became inextricably interrelated with the field of cybernetics, which investigated communications and control systems through the 1950s (Alt 4).¹⁴

With a renewed interest in mathematical cryptography and new computational applications in cybernetics, the study of network structures accelerated in the decades that followed World War II. In these years, a network vocabulary that also began to show up in various cultural contexts assumed a more

of points, also called *vertices* or *nodes*, and lines, also called *edges* or *links*, which abstracts away all the details of the original problem except for its connectivity” (1-2). As this definition suggests, a graph, in its abstract form, is similar to what contemporary scientists call a network. Euler’s proof is considered by many to be the first theorem of the pre-network field known as graph theory.

¹⁴ Alt adds that the systems theory paradigm shift “won proponents across a wide spectrum of academic disciplines, thanks in large part to the efforts of Margaret Mead and Gregory Bateson, who effectively repackaged general systems theory for a more interdisciplinary audience, especially in the human and social sciences” in the 1970s (4).

specific role in scientific study. Of particular significance to this shift was Anatol Rapoport and Ray Solomonoff's 1951 mathematical paper about the "random graph" — the foundational concept of contemporary network science. Unlike more abstract precursors, this paper used three natural systems — neural networks, epidemic disease networks, and an early version of a genetics network — to discuss distributed structure (Newman, Barabási, and Watts 11).¹⁵ No longer merely mathematical forms, networks began to affect the study of the material world.

Networks gradually came to influence the methodologies of numerous scientific disciplines. Despite early uses of a network vocabulary to describe the circulatory system, nerve cells, and other biological phenomena, science did not turn seriously to the study of the network structure until the 1950s and 1960s. This was the same historical period, as I will later show, during which decentralization began to emerge as a major social, economic, and political concept — a paradigm that would become a cultural dominant by the 1970s. Networks became a privileged object of study during this period thanks to the proliferation of quantitative methods to the social sciences. This approach produced a number of important studies, the most famous of which was psychologist Stanley Milgram's 1967 "small world"

¹⁵ A few years later, in 1960, Paul Erdős and Alfréd Rényi took another major step and introduced the study of random graphs into mainstream mathematics.

experiment that examined the “six degree of separation” between any two people in the United States (Newman, Barabási, and Watts 11). This form of social network analysis sought to make sense of individual interactions within larger social, economic, and political systems. Cultural trends and scientific research entered into a bidirectional relationship in which each influenced the language and focus of the other.

Graph theory, systems theory, and social network analysis played key roles in the network revolution that followed World War II. Even so, the interdisciplinary field of “network science” did not emerge until the later decades of the twentieth century. Since that time, the network paradigm has transformed along with efforts to study system architectures and human interactions. Newman, Barabási, and Watts identify three major differences between earlier areas of network research and these more recent developments. First, earlier graph theory was concerned primarily with elegant mathematical structures whereas more recent approaches are more focused on real-world occurrences and empirical properties of networks. Second, older studies tended to treat networks as static structures, but more recent developments in the field suggest that networks are evolving systems that are not merely capable of but actually defined by constant change. Finally, in recent decades, researchers

have shifted from understanding networks based on their overarching topological properties to studying the dynamic interactions that take place among constitutive nodes (4).¹⁶ These conceptual shifts have introduced further complications into the study of networks and made an interdisciplinary approach a key foundation of network science.

Since World War II, the science of networks has co-evolved with the development of material communications networks. Wartime cryptography efforts as well as postwar cybernetics, informatics, and computing research contributed to a fascination with interconnected technologies. During the computing revolution, new technological hardware and infrastructure popularized the interest in networks and gave rise to systems with a previously unthinkable communication speed.¹⁷

According to Castells, communications and information networks since the 1980s represent a significant change in *type* rather than mere *degree*. These systems provide

¹⁶ As Newman, Barabási, and Watts explain about this last point, “Interacting individuals, for instance, might affect one another’s opinions in reaching some collective decision (voting in a general election, for example), while an outbreak of a computer virus may or may not become an epidemic depending on the patterns of connections between machines” (7).

¹⁷ As Moore’s Law infamously indicates, microprocessor power (the density of transistors on an integrated chip) will double every 18 months as their cost of production is cut in half. In the realm of networks, Butter’s Law of Photonics makes the parallel suggestion that the cost of transmitting a bit of information over an optical network will be cut in half every 9 months. For more on Butter’s Law and the rapid development of networks see Rich Tehrani’s article “As We May Communicate.” In this piece, Tehrani explains that, based on Butter’s Law, networks firms such as Lucent Technologies foresee “a mega-network of networks, a communications skin with ubiquitous connectivity and enormous bandwidth.”

“the material basis for [the network’s] pervasive expansion throughout the entire social structure” (469). Contemporary networks are constituted and supported by informational flows. Everything from daily communications to traffic lights to weapons systems now depends on an interlinked material infrastructure.¹⁸ From private to public spheres, from local to national to international stages, networks have become the canvas upon which subjects, governments, and corporations render the modern world.

The technoscientific history of which I have offered only a general sketch is a crucial component of network development in the twentieth and early twenty-first century, but like the etymological perspective, it is not the only available approach to studying networks. As I already noted, networks are not only theoretical figures or technological infrastructures. They are also the architectural blueprints of present-day social and political structures. Networks, in their most contemporary conception, designate a field of informational, intersubjective, interpersonal, transnational, and transeconomic flows that have permeated the increasingly global

¹⁸ In fact, in 1997, Bill Clinton realized the unprecedented significance of databases and networks to American interests and established the President’s Commission on Critical Infrastructure Protection to defend the digital frameworks that support every facet of contemporary life (Cordesman 13).

military-industrial-media-entertainment complex.¹⁹ While the interdisciplinary explosion of network thought unquestionably suggests a scientific paradigm shift and a technological rupture, it is also a cultural transformation that has changed the way we think about and organize the world. Indeed, just as graph theory, systems theory, and network science have contributed to a dominant conception of networks, those structures have reciprocally produced the human beings who operate and think through network links and nodes. In the language of cybernetics, technoscience and culture participate in a unified feedback loop.

The scientific development of networks both influences and is, in turn, transformed by a cultural fascination with interconnection. Throughout this dissertation, I stress that networks serve as the foundation for a postwar structural paradigm that organizes social and political life. As theorists such as Alexander Galloway and Manuel Castells have demonstrated, the network is not merely a contemporary technology, but also as a new diagram of power and a decentralized

¹⁹ A cultural historical study of networks as such could span several centuries. In the study of American culture alone, the spatial configuration of the network can certainly be traced back to formations as diverse as the United States Postal Service, the Atlantic slave trade system, the first transcontinental railroad, the oppositional Underground Railroad, and the segregationist Jim Crow system. The language of networks has even been used to characterize communications systems between English settlers and Native Americans in colonial New England (see: Matt Cohen's *The Networked Wilderness*). Even as networks of cooperation, communication, community, as well as exclusion are unquestionably located in earlier historical periods, I suggest that the network as a concrete organizational formation occupies a unique position in post-World War II society.

management style. Instead of serving as a liberating alternative to the concentrated nucleus of power that accompanies centralized organization, the network represents a new form of ideology that undergirds contemporary labor, organizes dominant thought styles, and reformulates the parameters of human identity. Decentralized and distributed networks do not nullify the flux of power relations. Despite the claims of early techno-libertarians, networks do not usher in an age of perfect democracy and interconnected equality. These structures certainly introduce possibilities for new types of thought, but they also build upon previous systems of power and give rise to emergent systems of control.

The network should not be mistaken for a system update that is categorically progressive in nature. If we insist that a network is indeed an enhanced version of prior organizational structures then it is one built on already existing code that carries forward many of the old program's most persistent bugs. Like older forms, networks are built on prevailing cultural assumptions about race, class, gender, and sexuality, not to mention material technologies of power. Instead of redeeming past failures, networks more frequently involve reconfigurations of deep-seated inequalities. Along with age-old modes of anxiety and discrimination, networks also

introduce emergent varieties of cultural code that produce very concrete forms of social injustice.

0.2 Affects of Interconnection and American Networks of Terror

Even as it draws from the scientific and technological study of networks, this dissertation focuses on the cultural depiction of networks in contemporary American literature, film, and new media. Scientists such as Albert-László Barabási have studied network design and critics such as Alexander Galloway have addressed network ontology. Networks, however, also have affective dimensions. They transform the way that we think, feel, live, work, play, and act. They produce different kinds of human subjects and different associations among subjects and objects.²⁰ For this reason, it is important to attend to the fears, hopes, and emotions that these structures generate. While scientists have made numerous contributions to the study of networks, given inevitable disciplinary constraints, their methodologies have generally been less attentive to the cultural anxieties, political investments,

²⁰ For more, see Mark Hansen's *Embodiment Technesis: Technology Beyond Writing*. In this text, Hansen explores the particular ways that new technologies and media alter human perception, sensation, and embodiment: that is, our "ways of seeing" and experiencing the world. As Hansen explains, "technologies play a constitutive role in structuring the worlds within which they exist" (2) and, therefore, "play an essential role as part of what allows for the very existence of the social as such" (3). Along with such critics as Friedrich Kittler and N. Katherine Hayles, Hansen argues that technology actually produces a different type of embodiment and radically new modes of subjectivity. In exploring networks, as metaphorical, material, and aesthetic structures, this dissertation also examines the social, political, and subjective effects of network architectures.

power shifts, and changes in human being that are signaled by network structures. In addition to successful applications of the network form, misunderstandings about and misrepresentations of these structures have also had a powerful effect on culture. This impact has been especially significant in the United States where network thought has been integral to American global dominance. The literary aesthetics and forms that interest me explore precisely the affects that accompany interconnection in an American context.

Regretfully, in the era of American hegemony that began after World War II, one of the most significant affects that has permeated characterizations of contemporary networks in the United States has been terror. Alongside the frequently mentioned techno-utopian narrative, which reached its apex in the 1990s, a culture of fear has influenced many of the ways that Americans talk and think about networks. For several decades, American politicians, pulp fiction writers, and media reporters (just to name a few) have depicted networks as objects of fear. For numerous reasons, ranging from structural misunderstandings to strategic motives, such sources have used the vocabulary of interconnection to induce terror. They frequently represent terrorist networks as frightening enemies; volatile economic networks as causes for ceaseless anxiety; networks of disease contagion as

harbingers of human extinction; and computer webs as terrifying configurations that resist complete control by human coordinators. Networks, we are told repeatedly, merit our dread because they are distributed, unpredictable, uncontrollable, and susceptible to infiltration. As the dominant story goes, networks extend everywhere; and global civilization rests increasingly on interconnected infrastructures that link distant geographical areas and cultural zones. Given the increased reliance of human life on these forms, mass media often frame networks as the greatest potential threat to continued survival.

The fear of large-scale attacks by terrorist networks or the global spread of fatal epidemics — statistically improbable as both phenomena are — is not completely irrational. These threats have an empirical basis. The 9/11 attacks in the United States and terrorist activities in Iraq have taken thousands of lives. Similarly, in the realm of viral networks, the swine flu epidemic continues to rage around the world. Nevertheless, the media-perpetuated terror that accompanies these threats is severely overstated. Deaths suffered from terrorist attack are extremely rare and fatalities caused by swine flu have been restricted to relatively low numbers

(Lomasky 87).²¹ Despite the statistical reality, sources from the Office of Homeland Security to the Fox News Channel regularly exaggerate or sensationalize the threats posed by both terrorist and emerging infectious disease networks.

The overstatement of network threats is not an arbitrary cultural trend. Since the mid-twentieth century, the connection between networks and terror has served the strategic amassment of American power. In this sense, networks represent the most recent development in a longer history of an American politics of fear that stretches back to the early years of American geopolitical dominance. In order to understand the form of terror that inheres in many network representations, it is necessary to consider the fear that came to structure American thought following World War II. While this broader history expands beyond the parameters of network development, it provides a context for contemporary network affects and aesthetics to which I will return repeatedly throughout the dissertation. Fears emerging from

²¹ Regarding terrorist attacks, Lomasky contends that, despite the significant attention they receive, mortality suffered from terrorist attacks is extremely rare. He writes, "Ordinary citizens and their leaders believe that terrorism is portentous, that it is *news*. That belief is self-justifying. Events that happen halfway around the world and that directly involve only a relatively small number of heretofore obscure people take over television screens everywhere. For some reason, terrorist assault seems to *matter*. Its perceived significance is, however, totally disproportionate to any measurable effect on mortality tables or the stability of political regimes. If analysts have reason to care about definition, it is because other people care about terrorism for quite different reasons" (87).

American Cold War politics and multinational capitalism, in particular, gave rise to the terror of what I later call the network sublime.

Despite the triumphant victory over the Axis powers, the 1940s were shrouded in fears about the political future of the United States and the direction that the world would take in the wake of fascism. As popular historical accounts frequently recount, the wartime development of the atom bomb — a weapon spurred on by the fear that Nazi Germany would win the war by building it first — introduced a new atmosphere of perpetual terror. For the first time in history, total apocalypse was achievable by human means. The terror that began with the horrific bombings of Hiroshima and Nagasaki only escalated with the lengthy arms race, which commenced with the Soviet Union's development of the atom bomb in 1949 and reached its frenzied apex with the Cuban Missile Crisis in 1962. From the start, the nuclear age was also an era of terror.

While the nuclear history of the Cold War is frequently retold in broad realist strokes, this narrative shifts the focus from a number of equally terrifying political, social, and economic features that defined the era of American power. For starters, the Cold War was not merely a bidirectional conflict between the United States and the Soviet Union; nor is this clash reducible to the politics of the arms race.

Beginning in the 1960s, the hair-trigger nuclear deadlock between the superpowers opened a space for more conventional military maneuverings. In a series of international proxy wars, U.S. and Soviet forces vied for ground in Southeast Asia, Africa, Central America, and the Middle East. Instead of being restricted by the logic of Mutually Assured Destruction and its corresponding system of deterrence, the terror of an allegedly *Cold War* began to produce large-scale military encounters — violent hot wars — that spread across the globe.²² In these campaigns, politicians leveraged the terror of Communism and the possibility of losing the Cold War to justify preemptive violence outside of the borders of the United States.

Even as wars between nation-states spread around the world, the terror of the Cold War was not restricted to government operations. Beginning in the Vietnam War years, from the mid-1960s through the 1970s, the macro-political balance of terror between the superpowers was supplemented by the terror of nongovernment forces that sought to challenge decades of militaristic excesses and social discrimination. The politics of fear, in other words, came to encompass a broad field that included combatants and civilians, state and non-state actors alike. In the United States, nonviolent political organizations — domestic groups that took

²² For a history of the late Cold War and the significance of worldwide proxy wars, see: Mahmood Mamdani's *Good Muslim, Bad Muslim: American, the Cold War, and the Roots of Terror*.

part in the early Civil Rights Movement as well as anti-war collectives such as the Students for a Democratic Society — began to splinter into more militant resistance networks. From the Black Panthers to the Weather Underground, protest marches ceded to tactical bombings and assaults on police (Joseph). A process that began as a government-centric scramble for national control — the U.S. response to the power vacuum that opened after World War II — quickly developed into an internecine system of terror composed of both power structures and the resistances they inspired.

For all of the anxiety and chaos that accompanied the postwar years, “terror” itself only became a dominant discursive category during the era of terrorism that developed from and alongside social movements, in the early 1970s.²³ Beginning with the 1972 Munich Olympic crisis, when the Palestinian Black September group massacred the Israeli Olympic team in order to spread political terror, the world media became obsessed with the new threat of international terrorism. Unlike previous acts of political resistance that were restricted to particular nations, this

²³ The modern sense of the word “terrorist” is dated to 1947, especially in reference to Jewish tactics against the British in Palestine. Nevertheless, this word does not achieve true media cachet, on a global stage, until the 1970s. The word itself, in its older political valence, stretches all the way back to Robespierre’s Reign of Terror during the French Revolution. For more on the history of terrorism, see: Charles Townshend’s *Terrorism: A Very Short Introduction*.

new brand of terrorism emerged as an international problem: a violent symptom of globalization.²⁴ From the Khartoum diplomatic assassinations of 1973 to the Iranian Embassy Siege of 1980 to the Aum Shinrikyo Tokyo sarin gas attacks and Oklahoma City bombing of 1995 to the World Trade Center attack of 2001, terrorism has dominated media representations of both national and international conflict. While terrorism has been far from the only form that political fear has taken in recent years, the media's fixation on non-sovereign threats has been the primary news frame by which the political language of terror has taken American policymaking hostage. Especially since September 11, 2001, when virtually all American foreign policy began being filtered through the framework of the "War on Terror," terror has become a keyword of American politics.

From the Cold War balance of terror that began in the late 1940s to the early twenty-first century War on Terror, fear has pervaded the American political imaginary and influenced U.S. global policies. Beyond the fear of nuclear weapons, anti-state movements, and terrorist networks, Americans have become attuned to a

²⁴ While the number of terrorist incidents began rising after the Munich Olympic crisis (peaking in the mid-to-late 1980s), after the official end of the Cold War, the frequency of terrorist incidents actually decreased sharply. Nevertheless, for the first time, in the 1990s, there were more terrorist attacks being aimed against the United States. Despite this relative increase of attacks, the overall number and intensity was still insignificant compared to the threat faced by other nations. With the exception of the Oklahoma City bombing and the attacks of September 11, 2001, there were almost no American casualties from terrorism up until that time (Norris, Kern, and Just 284-7).

variety of media-induced terrors. In many cases, these threats no longer concern individuals or even nations. Emerging infectious diseases, psychological epidemics, cataclysmic natural disasters, economic collapses, global warming, and countless other threats are systemic and global in nature. The fear of an impending catastrophe has been propagated by a vast media complex that extends beyond national lines and adopts various technological vehicles to convey prophecies of doom. This terror has become a mainstay of contemporary politics and popular culture in the United States.

In contemporary America, fear has operated not as a secondary byproduct of socio-political development but, in many cases, as a deliberate strategy employed by those in power (Robin 2).²⁵ The oppressive nature of political fear becomes especially

²⁵ Corey Robin contends that politicians often represent fear as a mechanism that enables governments to regulate and order an otherwise chaotic society. For centuries, oppressive regimes and democratic governments alike have maintained power through different forms of dreadful force. Robin analyzes political fear as an emotion that “arises from conflicts within and between societies” (2). Charting the transformation of fear through modernity, he attends to the centrality of this affect through the history of political theory, moving from Thomas Hobbes’s seventeenth-century analysis of “fear” to Charles Montesquieu’s eighteenth-century exploration of “terror” to Alexis de Tocqueville’s nineteenth-century writing on “anxiety” to Hannah Arendt twentieth-century theories of “total terror.” Each major thinker offers a different reading of fear that is informed by his or her political moment. For Hobbes, who wrote his *Leviathan* during the English Civil War and that period’s extreme pressure on the British monarchy, fear operates as a galvanizing force used by elites and those in power as a means of establishing order, law, and a moral language. For Montesquieu, whose work emerged from an era of despotic rule that would eventually spur the American and French revolutions, terror is not the product of the law, but an attribute of a tyrant’s reliance on lawless violence. For Tocqueville, whose sociological analyses came from the early age of post-revolutionary democracy in the West, modernity’s key form of fear is anxiety: a restless insecurity that has no definitive object and develops into a permanent psychic state of the multitudes. Finally, for

evident when we consider the financial dimensions of American hegemony. Since the mid-twentieth century — in the very same decades that the network emerged as a dominant metaphor and material structure — terror has served a specific political agenda and its corresponding economic vision of the world. As Naomi Klein demonstrates, in American foreign policy, terror was never a response to external threats. It was a strategy of what she calls “disaster capitalism” — “the treatment of disasters as exciting market opportunities” (6). According to Klein, politicians have used the exploitation of fear surrounding global crises to “advance a fundamentalist version of capitalism” (7). By destroying previous systems and scaring traumatized people into believing that multinational capitalism is the only real alternative to totalitarian rule, disaster capitalism has spread virally across the planet.

Especially since the 1950s, the American “shock therapy” approach became the central tenet of Milton Friedman’s Chicago school of economic thought. The

Arendt, whose responses to World War II grappled with the rise of Nazism and Stalinism, totalitarian rule enables a state of total terror that dissolves the self, gives rise to the fragmented masses, and justifies the greatest imperial excesses in human history.

Regardless of numerous defenses for a politics of fear, throughout history, this technique has proven both conservative and dangerous. Most forms of fear are not the inconsequential affective residue of otherwise just government or necessary evils that facilitate sociopolitical progress. Repeatedly, fear has proven antithetical to the ends of justice. As Robin argues, fear makes genuine change virtually impossible by allowing those in power to perpetuate the status quo with all of its social disparities and political inequalities.

theory suggested that by wiping out older systems, the United States would enable free trade, which would in turn promote the global spread of “unfettered capitalism” (5). Originally considered a fringe philosophy — a radical response to John Maynard Keynes’s New Deal — disaster capitalism evolved into a mainstream policy approach in the mid-1970s. In these years, Friedman moved beyond the realm of theory and began to advise Chilean General Augusto Pinochet when the dictator rose to power. Since the 1970s, Klein explains, terror and catastrophe became the “preferred method of advancing corporate goals: using moments of collective trauma to engage in radical social and economic engineering” (9). From Argentina to Bolivia, from Poland to Iraq, the American global policy of “free trade” for the last four decades has been driven by the creation and transmission of terror. Instead of universal wealth, this approach has subjected billions of people to war and poverty.

I contend that the political terror necessary to enable this contemporary form of American capitalism and geopolitical dominance has been enabled by network language. From a strategic standpoint, this approach makes good sense. Framing the threat of terrorism through the concept of the distributed terrorist network, for example, is an ideal recipe for maintaining and building power. Terrorist networks are difficult to wipe out. The infiltration of even a few cells of a criminal network

does not destroy its overall structure, which is built to expand and survive attempts at disruption. A truly decentralized enemy thus allows for war without end, which in turn enables the perpetual spread of American power around the world. While centralized threats, in general, can be destroyed, networked threats are not so easily eliminated. If American capitalism thrives in an atmosphere of perpetual “creative destruction,” as proponents of free trade have openly admitted, then there is indeed no better way to spread fear than through a network structure that is dispersed and constant in its menace.²⁶ The principle at work with terrorist networks is also true with other network threats. Precarious computer networks, for example, require American security expertise as profitable corporations export them around the world. Similarly, vulnerable economic networks that are (as the now-popular phrase claims) “too interconnected to fail” justify various forms of self-serving U.S. financial regulation.

Much of the terror generated by network representations is based on a faulty understanding of these structures. In being converted into fearful things, networks are frequently reified and objectified. The language of networks is often used to describe forms that are discrete instead of web-like; static instead of dynamic; spatial

²⁶ Joseph Alois Schumpeter coined the term “creative destruction” in *Capitalism, Socialism, and Democracy*.

instead of topological; hierarchal instead of distributed. There is an underlying representational paradox at play here — a disconnection between network language and non-networked referents. The U.S. military uses an inadequately understood network vocabulary to reframe older, centralized enemy formations, treating terrorist networks as they once did national foes. Science fiction films from *Terminator 2* to *The Matrix* represent complex computer networks, but still convert them into anthropomorphized sentient consciousnesses that turn against their makers and threaten human apocalypse. Politicians use the language of networks to frame financial crisis, but continue to treat economic decline as the result of anomalous events (e.g., the problems faced by particular corporations such as Bear Stearns) rather than deep structural problems that are the consequence of a long history of American finance and the system of multinational capitalism itself. Despite the major epistemological, scientific, and cultural paradigm shift marked by networks, American politics continues to rely on the fearful binary logic of friend and enemy, us and them, invoking the complexity of networks in name but rarely in substance.

In the process of becoming a strategic tool, terror has displaced a complex history of suffering and oppression in the United States. The obsessive production of

external enemies since World War II has sidestepped the complexities of democratic governance and displaced the inconsistencies that plague American history. While we worry about biological, cyber, and nuclear attacks being planned by anti-American terrorist networks, or panic about viral computer network emergences, many of the real terrors of contemporary American life go comparatively neglected. Indeed, the links between a longer history of fear and the current atmosphere of terror are often ignored. From the programmatic extermination of native peoples and the systemic damage of plantation slavery; from the intimidating tactics of the Ku Klux Klan to the nativist mission of the Minuteman Civil Defense Corps that patrols the U.S.-Mexico border; from the paralyzing problems of the healthcare system to urban poverty, there are plenty of things that merit much more fear than they induce.

It is not only apocalyptic macro-economic crashes or technological collapses that warrant widespread anxiety. Even as significantly more energy has been poured into addressing meaningful problems since the popular unseating of neoconservative leaders in the 2008 election, structural neglect persists in a country in which neoliberal Democrats have a temporary majority. Indeed, Barack Obama's 2009 Nobel Prize acceptance speech suggests that the overarching U.S. policy of

foreign intervention and capitalist expansion is not a matter of the past. "Evil does exist in the world," Obama contends in this statement. "A nonviolent movement could not have halted Hitler's armies. Negotiations cannot convince al-Qaida's leaders to lay down their arms" (*New York Times* 2009). The rhetoric of just war, which has served as the basis for the spread of American capitalism and democracy promotion, continues to be prevalent in the current administration, as it was under a Republican majority. Strategic global stakes continue to garner more attention than human suffering.

In the midst of grand events, spectacles, and antagonisms, those in power still manage to sidestep the systemic fears that are the result of the very structure of capitalism: the daily dread of realities such as perpetual poverty, drug addiction, and racial discrimination. Sensational terror takes the place of genuine structural fears that affect millions of Americans and billions of non-Americans touched by the superpower's policies. Representations of network structures have privileged a future-oriented form of terror over fears that haunt the past and saturate the present. The process of political displacement, of both thought and resources, in a nation as allegedly powerful as the United States is as terrifying as it is tragic.

0.3 The Network Sublime

This project addresses fear and other network affects through a study of literary and media aesthetics. Perhaps more effectively than any other philosophical concept, the “sublime” links together the affect of terror to the aesthetic dimensions of contemporary networks. Before discussing the literary life of networks and the cultural forms they have taken in recent years, it is important to look briefly at the way that sublimity mediates aesthetics of interconnection.

The modern meaning of the sublime emerges from early eighteenth century British writing about awe-inspiring natural objects such as majestic mountains and turbulent oceans. For Edmund Burke, the sublime is an intense feeling of astonishment that is tinged with terror. While a feeling of the sublime is not generated by anything that puts the subject in immediate danger, a distant sense of terror is nonetheless central to sublimity: “whatever is in any sort terrible, or is conversant about terrible objects, or operates in a manner analogous to terror, is a source of the *sublime*; that is, it is productive of the strongest emotion which the mind is capable of feeling” (Burke 36). Adding to the sense of terror that characterizes Burke’s understanding of the sublime, Immanuel Kant emphasizes sublime boundlessness. Differentiating the sublime from the beautiful, he explains, “The Beautiful in nature is connected with the form of the object, which consists in

having boundaries. The Sublime, on the other hand, is to be found in a formless object, so far as in it or by occasion of it *boundlessness* is represented, and yet its totality is also present to thought" (Kant §23). While the sublime can be analyzed, it remains indistinct and absolute access to it proves impossible. It is, in fact, the sublime's formless ambiguity from which fear arises. As Burke puts it, the sublime is that which is "dark, uncertain, confused, [and] terrible" (55).

Although it was developed in the context of eighteenth-century aesthetic theory, the concept of the sublime is useful for thinking about contemporary networks. The sense of network terror that I described in the previous section derives, in part, from the expansiveness and boundlessness of interconnected structures. Galloway and Thacker capture this feature of networks when they write, "it is in the nature of networks to transgress boundaries of all kinds — institutional, disciplinary, national, technical and biological boundaries" (113). Networks transgress borders. They are heterogeneous and constantly changing structures that persist through the addition of new nodes and links. These structures are by no means formless, but their structural variability and expansiveness nonetheless makes them ideal for evoking terror. Much like the overwhelming concept of the "world," the network evokes a totality that approaches a boundless infinity — a

proliferating multiplicity that challenges the very capacity to think it. Given its scope, the network is, to apply Burke's sense of the sublime to a contemporary context, a structure of "terrible uncertainty" (Burke 58).

Throughout my examination of American cultures of interconnection in this dissertation, I return to a sense of the network sublime.²⁷ In my usage, this concept is not merely aesthetic, as it is for Burke and Kant. It also carries a sociopolitical dimension. Indeed, the network sublime serves as a larger reminder that aesthetic representations and the affects that they produce are never fully devoid of or uninformed by questions about social and political power. Even in his earlier description of the sublime, Burke admits, "I know of nothing sublime which is not some modification of power" (59). Power that is capable of subsuming and hurting the individual gives the sublime its force. For Burke, the exemplary figure of sublime power is God who is the ultimate cause in the chain of being. At the end of his catalogue of levels of sublime feeling, he identifies God's power and notes, "Thus we have traced power through its several gradations unto the highest of all, where our imagination is finally lost; and we find terror quite throughout the progress, its

²⁷ At the end of an essay about *Bleak House* and network science, Caroline Levine imagines the novel as a "narratively networked sublime" ("Narrative Networks: *Bleak House* and the Affordances of Form" 523). I seek to build on Levine's term and expand it from the realm of narratives to a broader sphere of cultural production.

inseparable companion, and growing along with it, as far as we can possibly trace them" (Burke 64).

In the late twentieth and early twenty-first century, a more secularized Western mode of thought no longer draws an equivalent sense of astonishment from the source code of God as glimpsed via the intermediating interface of Nature. Even the Enlightenment's humanist apotheosis of Man as the measure of all things is now no longer in full force. Since the early years of the twentieth century, many modernist and postmodernist artists have suggested that the contemporary version of the sublime invokes an existential lack of meaning or a profound absence at the center of things. While this school of thought has not fallen completely out of fashion in the early years of the twenty-first century, the sense of the sublime induced by networks does not suggest the type of core lack that recurs in a great deal of poststructuralist thought. Even without an overwhelming sense of romantic naturalism, theological metaphysics, or transcendent humanism, the contemporary sense of the sublime gestures toward a greatness that is irreducible to mere nihilism. The networks constructed and identified by postwar society are systems that link people and technologies around the globe. They remind us that interconnections, as

well as the overabundance of information that those associations entail, exceed individual subjectivity.

Even so, networks do not preclude other, non-individualistic forms of meaning-making. Since the mid-twentieth century, the network has developed into a new form of power that is founded not on standard hierarchies but on a distributed mode of sovereignty. Financial networks that spread out across the entire planet enable international mergers and dense webs of capital flow. Information networks that make use of numerous emerging technologies and their modalities produce new power hubs without allowing any single party or organization complete control. Terrorist networks— hydra-headed and decentralized — grow through the addition of worldwide cells that continue disruptive activities, even as the United States achieves partial victories in the War on Terror. In all of these cases, power flows through a grid of interconnected circuits that frustrates total understanding. The aesthetic feeling that accompanies this power is one of sublime greatness that swallows up a core sense of individuality. As Jean-François Lyotard explains, this sense of excessive immensity is not only a feature of raw information but of the socioeconomic systems that contain such data. “There is something of the sublime in capitalist economy,” he observes. “It is not academic, it is not physiocratic, it denies

nature. It is, in a sense, an economy regulated by an Idea — infinite wealth or power” (“The Sublime and the Avant-garde” 43). The network sublime and its accompanying aesthetics point to a system of multinational capitalism that has played a major role in the growth of American geopolitical power in the contemporary period. This vast system — in its social, economic, political, cultural, and affective dimensions — is one of the key focal points of all of my analyses in this dissertation. The feeling of sublimity inspired by this global structure also shapes what I call network aesthetics as they appear in American literature and culture.

0.4 Network Aesthetics

In the society of the spectacle, people experience terror at the level of events.²⁸ Media outlets document history through quick sound bites and powerful images. American politicians certainly use the language of systems, but they usually do so without engaging in a structural way of thinking that is suggested by such a vocabulary. This tendency is unfortunate given that the study of networks suggests that so much can be gained if we begin to understand the world in terms of

²⁸ In *The Society of the Spectacle*, Guy Debord defines the spectacle as “not a collection of images,” but rather “a social relationship between people that is mediated by images” (12). The images of commercial airplanes crashing into the World Trade Center towers on September 11, 2001 are exemplary of this type of spectacle. Arguably, these iconic images not only altered the social order, but were also used to mobilize a new American neo-conservative sociopolitical world order in the years following the terrorist attacks.

structures.²⁹ Sources from CNN news reports to popular genre fictions often employ networks in the service of fear mongering. Nevertheless, these decentralized assemblages promise a fuller understanding of both the nature of American political terror and contemporary interconnection if they are imagined as dynamic structures rather than threatening objects. Terror, I contend, cannot give rise to a productive politics. As Corey Robin puts it, if society is to be changed for the better, “we must

²⁹ The distinction between “events” and “structures” is intended to be heuristic rather than absolute. Thinking carefully about the “event,” Jacques Derrida suggests a way that events always already carry a structural component. He develops this argument in an interview with philosopher Giovanna Borradori about 9/11. While an event is commonly understood as a significant happening, it is more accurate to say that a major “event” is the opposite: an occurrence whose real significance or meaning remains unknown. Derrida notes the following about the epistemological status of an “event”: “‘To mark a date in history’ presupposes, in any case, that ‘something’ comes or happens for the first and last time, ‘something’ that we do not yet really know how to identify, determine, recognize, or analyze but that should remain from here on in unforgettable” (86). In Derrida’s characterization, while an event may be unforgettable, its overwhelming surfeit of historical meaning remains equally incomprehensible. That hidden significance is only further obscured by mass media simplifications. Even as it is understood in temporal or historical terms, for Derrida, an “event” also takes on a topological dimension. The impenetrability of an event operates as a structure that is both psychological and ontological: “The undergoing of the event, that which in the undergoing or in the ordeal *at once opens itself up to and resists experience*, is, it seems to me, a certain *unappropriability* of what comes or happens. The event is what comes and, in coming comes to surprise me, to surprise and to suspend comprehension: the event is first of all *that which* I do not first of all comprehend. Better, the event is first of all *that* I do not comprehend” (90). In Derrida’s terms, an event functions as a traumatic cognitive formation: not merely an opaque object but the fundamental ontological state of incomprehensibility (93). But the structural dimension of an event suggests more than philosophical or psychological consequences. Indeed, thinking through an event like the American 9/11 in historical and epistemological terms reveals an even greater myopia regarding present-day structures of terror. Instead of the immoral act of terrorist Evil, a more careful reflection reveals the terrorist attacks to be an epiphenomenon of something more complex: an extensive global network that emerged from the history of the late Cold War, the development of American politico-economic hegemony, and the rise of a militant strand of political Islam.

abandon the notion that fear can be a foundation of political life" (165).³⁰ Fear is fundamentally antithetical to the ends of justice. It simply reproduces the status quo. Understanding how networks have formally come to evoke terror, however, can help us grow less susceptible to a politics of fear and more able to act justly as we negotiate our increasingly interconnected world. In place of configurations of terror that isolate individuals and paralyze analytical thought, networks are capable of linking disparate subjects and generating more compelling modes of knowledge.

Most of the writers, filmmakers, and media innovators that I analyze in this dissertation attend to the complexity of network structures. They attempt to capture some of the deep transformations of the era of interconnection through aesthetic, narrative, formal, and media-specific experimentation. These literary productions help us feel and understand the affects of linkage. From novels such as Thomas Pynchon's *Gravity's Rainbow* to television shows such as HBO's *The Wire*, these works challenge dominant representations of fear-inducing networks. They make sense of actual network protocols and imagine more generative uses for

³⁰ Particularly in American politics, where it has such widespread consequences, fear cannot continue structuring our foreign and domestic policy. To put the problem in psychoanalytic terms, terror addresses only the symptoms of contemporary problems and not their causes. That is, whereas the future of genuine democracy depends on political actors and organizations "working through" the framework of fear that structures the contemporary world, a politics of terror represents an "acting out" in response to the possibility of terrifying events or acts of terror. For more on the distinction between "acting out" and "working through," see Dominic LaCapra's *Writing History, Writing Trauma*.

interconnected structures. The artistic works that interest me demonstrate that while fear is a core component of the network sublime, sublimity need not be synonymous with the propagation of terror. As Kant reminds us, “He who fears can form no judgment about the Sublime” because “it is impossible to find satisfaction in a terror that is seriously felt” (§28).

Indeed, there is a productive form of fear toward which the network sublime gestures, but it is not the terror that has driven American politics since the mid-twentieth century. Fear is only useful when it helps predict and prevent future dangers, not when it creates even greater dangers than the ones it promises to forestall.³¹ The future-oriented terror most common in the United States paralyzes thought and promotes solipsism. As historian Joanna Bourke contends, in the United States, “when hearing about real-life viciousness we may feel pity or distaste, but when we identify the emotion of fear it is our fear that concerns us. It is the fear of something that may befall us, rather than fear *for* others, those people on whom we inflict suffering” (Bourke x). I contend that networks are capable of helping us think through this second type of fear: a fear for the well-being of others with whom we

³¹ Hannah Arendt puts this point well at the end of *The Origins of Totalitarianism*. She writes, “Under totalitarian conditions fear probably is more widespread than ever before; but fear has lost its practical usefulness when actions guided by it can no longer help to avoid the dangers man fears” (467).

are inextricably linked. In their most politically responsible renderings, the network sublime and the aesthetics of interconnection remind us that the vulnerability of others, whether the poverty-stricken populations of the Global South or the American underclass, is always a *reciprocal* vulnerability.

In order to represent this mode of fear for others, contemporary artists as diverse as novelist Marge Piercy, filmmaker Stephen Gaghan, and game designer Gonzalo Frasca have depicted networks as structures of changing relations.³² To organize my study of these types of works, I propose the term “network aesthetics.” This concept encompasses stylistic representations, narrative experiments, and media developments that contemporary writers use to engage with the network sublime and envision the totality of global interconnection. While network aesthetics derive most directly from technoscientific and sociopolitical developments that date back only to the 1940s, they also draw elements from earlier modernist work. The aesthetic fascination with the sublime was adopted most enthusiastically in romanticism but, as Lyotard observes, it may also have been the dominant

³² Gilles Deleuze observes, “Relation is not a property of objects, it is always external to its terms.” He continues, “Relations do not belong to objects, but to the whole, on condition that this is not confused with a closed set of objects.... through relations, the whole is transformed or changes qualitatively.” For more, see: Gilles Deleuze. *Cinema 1: The Movement-Image* (London: Athlone, 1986), 10. An attention to relations among open sets of objects characterizes the transformative capacity of networks. In the contemporary period, change itself becomes a quality not of new types of objects but of reconfigurations in the relations that connect them.

sensibility of modernism. "I think in particular that it is in the aesthetic of the sublime," he writes, "that modern art (including literature) finds its impetus and the logic of avant-gardes finds its axioms." Through the sublime, modern art seeks to "present the fact that the unrepresentable exists" (*The Postmodern Condition*, 77).³³

The modernist fascination with the unrepresentable sublime that emerged in the early twentieth century continued and transformed in the years following World War II. Joseph Tabbi makes this point convincingly in his book *Postmodern Sublime* where he argues that "the sublime persists as a powerful emotive force in postmodern writing, especially in American works that regard reality as something newly mediated, predominantly, by science and technology" (ix). In the postmodern period, the sublime no longer suggests a theological or merely artistic order. The contemporary sense of the sublime gestures toward "technological structures and global corporate systems beyond the comprehension of any one mind or imagination" (ix). As the modernists before them, American writers such as Norman

³³ Lyotard expands on this argument in his essay "The Sublime and the Avant-Garde" in which he notes, "The sublime may well be the single artistic sensibility to characterize the Modern" (38). In a reading that focuses primarily on painting and the visual arts, he explains, "This contradictory feeling — pleasure and pain, joy and anxiety, exaltation and depression — was baptized or rechristened between the 17th and 18th centuries in Europe by the name of the 'sublime.' It is over this word that the destiny of classical poetics was wagered and lost; it is in this name that aesthetics made its critical prerogatives matter to art, and that romanticism — in other words modernity — triumphed" (37).

Mailer, Thomas Pynchon, Joseph McElroy, and Don DeLillo have been concerned with this contemporary sense of aesthetic astonishment and overwhelming awe.

In recent decades, the most powerful sense of the sublime has been derived not from machines or technology, in general, but from networks. The network is the contemporary form of totality that can be imagined but never fully comprehended. While Lyotard does not make the explicit connection between the network and the postmodern sense of the “unpresentable” sublime, it is implicit in his description of the postmodern condition. “A *self* does not amount to much,” he writes, “but no self is an island; each exists in a fabric of relations that is now more complex and mobile than ever before. Young or old, man or woman, rich or poor, a person is always located at ‘nodal points’ of specific communication circuits, however tiny these may be. Or better: One is always located at a post through which various kinds of messages pass” (*The Postmodern Condition* 15). In this passage, sublimity is figured as a loss of self that cedes to an interconnected web. The language of a “fabric of relations” that links “nodal points” plays a prominent role in poststructuralist theory and postmodern art, but it belongs even more explicitly to the realm of network aesthetics.

I track network aesthetics through American literature, popular culture, and new media. Given their inherent transformability and fundamental extensibility, networks cannot be reproduced in totality. Nevertheless, their links, nodes, and patterns of association can be felt and interpreted.³⁴ The postmodern prose experiments of Thomas Pynchon in *Gravity's Rainbow* stage fleeting encounters with the corporate and political networks that emerged in the years following World War II. The quick cuts and audio bridges of Stephen Gaghan's film *Syriana* contextualize terrorist networks and reveal the intricate linkages that make up the global era. The inverted, cascading green characters of the Wachowski Brothers' *Matrix* films and videogames offer a glimpse into one vision of the network sublime. Together, these works produce affective experiences of networks that, in turn, color contemporary responses to the very idea of interconnection. These network aesthetics and interconnected forms demonstrate that networks are organizationally complex, hermeneutically polysemous, and capable of helping us think differently about human relations.

³⁴ Informatic networks are frequently searchable for information or graphically abstracted via visualization technologies. But even such representations do not reproduce a network in its entirety. Moreover, countless decisions about visual depictions of connections and data influence the affective experience of any given network.

0.5 Literary Webs

The influence of networks on narrative form, literary metaphors, and new media aesthetics is most visible in the postwar period. Nevertheless, one of the earliest literary engagements with proto-network thought dates back to Hungarian writer Frigyes Karinthy's 1929 short story "Chain-Links." In this noteworthy tale, a group of friends engages in a curious thought experiment. One character instructs the others to "select any person from the 1.5 billion inhabitants of the Earth— anyone, anywhere at all." As the narrator explains, "He bet us that, using no more than *five* individuals, one of whom is a personal acquaintance, he could contact the selected individual using nothing except the network of personal acquaintances." As it turns out, "nobody from the group needed more than five links in the chain to reach, just by using the method of acquaintance, any inhabitant of our Planet" (Karinthy in Newman, Barabási, and Watts 22-3).³⁵ A minor story in a largely unsuccessful collection, Karinthy's idea nevertheless proved to be one of the central concepts of twentieth-century network science. The "small world" thesis posited by

³⁵ One character links himself to a Swedish novelist and Nobel Prize winner (Selma Lagerlof) through just two intermediaries. The narrator links himself to "an anonymous riveter at the Ford Motor Company" in four steps: "The worker knows his foreman, who knows Mr. Ford himself, who, in turn is on good terms with the director general of the Hearst publishing empire. I had a close friend, Mr. Árpád Pásztor, who had recently struck up an acquaintance with the director of Hearst publishing." (23). While it does not use the language of links in the same way, the earlier Jules Verne novel *Around the World in Eighty Days* (1873) also furthers a similar thesis that the world has grown smaller.

Karinthy would later be explored more systematically by mathematicians Ithiel de Sola Pool and Manfred Kochen in the 1950s and tested by Stanley Milgram in his “six degrees of separation” experiment in 1967.

The influence of Karinthy’s story on later thinkers and scientists suggests that literature and technoscience are always in bidirectional conversation with one another. Fictional works are never perfect mirrors of the world. Their reflections are always distorted by various speculations and imaginings. Art certainly represents culture but it just as often shapes it. In his 1914 novel *The World Set Free*, H.G. Wells imagined and named the “atomic bomb” long before its creation. In 1984, William Gibson coined the term “cyberspace” in his breakthrough cyberpunk novel *Neuromancer*, thereby influencing the conception and construction of such a digital realm by computer scientists and designers in subsequent years. Similarly, the works I explore do not merely describe networks as they already exist. Novels such as Don DeLillo’s *Underworld* and films such as Alex Rivera’s *Sleep Dealer* may depict real-world networks, but they also alter the way that we understand these structures.

As Galloway and Thacker put it, “If, as the truism goes, it takes networks to fight networks, then it also takes networks to understand networks” (117). In a number of senses, the works I explore are literary and media networks that channel

and explore interconnected structures. I do not limit my understanding of network aesthetics to something like David Ciccoricco's category of "network fiction," which designates only those digital texts that have previously been discussed under the rubrics of "hypertext fiction" and "electronic literature."³⁶ Network aesthetics, as I use the term, play out across a wide spectrum of American prose, visual, and interactive works. Encyclopedic novels from Thomas Pynchon's *Gravity's Rainbow* (1973) to Neal Stephenson's *Cryptonomicon* (1999) represent the interpenetration of corporate and political networks. Experimental fictions from William Burroughs's *Soft Machine* (1961) to Kathy Acker's *Empire of the Senseless* (1988) create new associative languages to capture the consequences of cybernetic control systems. Comic books from *Justice League of America* (1977) to *The Invincible Iron Man* (2008) depict supervillains who emerge from and rely on complex networks to challenge the medium's most iconic superheroes.³⁷ Hollywood films such as *Short Cuts* (1993), *Traffic* (2000), and *Babel* (2006) have contributed to the interconnected form that critic

³⁶ Ciccoricco uses the term "network fiction" to describe literature that "makes use of hypertext technology in order to create emergent and recombinatory narratives" (4). Even as I do not see this form of literature as the only entry point for studying network aesthetics, I by no means exclude it from my study or the category of network aesthetics. For an extensive recent exploration of "electronic literature", see: N. Katherine Hayles's *Electronic Literature: New Horizons for the Literary*.

³⁷ Here, I have in mind the *Justice League of America* "Return From Forever!" storyline. In the "The Five Nightmares" plotline of the more recent *The Invincible Iron Man* series, Iron Man's primary villain Ezekiel Stane is a post-national computer genius who fights the superhero's machine sensibilities with various distributed and mobile network strategies.

Roger Ebert calls “hyperlink cinema.”³⁸ Television shows such as *The Wire* (2002-2008) and *Battlestar Galactica* (2003-2009) explore real-world and science-fiction networks. Digital games from Will Wright’s *SimEarth: The Living Planet* (1990) to Blizzard’s *World of Warcraft* (2004) simulate complex ecologies and allow user interaction in vast social networks.

In five chapters, I analyze literary works that generate network aesthetics and dramatize the affects — alternatively terrifying and thrilling — of interconnection. The first three chapters examine prominent applications of network language and metaphors in three different areas: politics, economics, and computing. Here, I explore dominant metaphors of interconnection and the ways they contribute to an American politics of fear. The final two chapters turn to networks that tend to be obscured in scientific studies, including the global network of American empire and the social networks that have arisen domestically during the era of U.S. geopolitical dominance. Through all five chapters, I contend that the language of networks has played a central role in the trajectory of American-led globalization and multinational capitalism since the mid-twentieth century.

³⁸ Ebert first uses the term “hyperlink movie” in his review of Stephen Gaghan’s *Syriana* (*Chicago Sun-Times*, December 9, 2005). The term was originally used by Alissa Quart.

I establish the intersection between the discourse of networks and political terror in the first chapter — “The Terror Network and Other Fictions.” Network representations have proliferated in American political and military discourse since the emergence of the most prominent enemy of our interconnected epoch: the terrorist network. During the *détente* of the 1970s, the United States produced this distributed foe in order to win the Cold War, failing to realize the threat it would subsequently pose to American power. In this chapter, I evaluate the relationship between the strategic language that is used to frame enemy networks and the actual organizations that continue to challenge American sovereignty. My analysis of terrorist networks focuses primarily on four texts: Claire Sterling’s journalistic bestseller *The Terror Network* (1981), the U.S. Department of Defense’s strategic military plan “Information Operations Roadmap” (2003), Marc Sageman’s sociological study *Understanding Terror Networks* (2004), and Stephen Gaghan’s network film *Syriana* (2005). The chapter examines the vocabulary that shapes networked enemies and identifies the material conditions, causes, and connections that produced these distributed figures. The discourse of *terrorist networks* obscures an underlying configuration I call the *terror network*: an internecine system that serves as the foundation for both American democracy and the forces that oppose it.

The second chapter — “‘All Reciprocally Vulnerable’: American Finance, Capitalist Networks, and the Fiction of Don DeLillo” — extends the analysis of terror I offer in my discussion of enemy networks to an area in which it is less frequently acknowledged in popular culture: American-style capitalism and its volatile webs of financial capital. In recent years, countless economic analysts have described global investment banks such as Bear Stearns as “too interconnected to fail.” Even decades before the current recession, however, economists began to treat the global financial system as a network and draw from network methodologies, including interaction models, graph theory, and multi-agent techniques. Given the role of the United States as an economic giant since the mid-twentieth century, American fiction has been particularly keen in registering the increased interdependence of markets. One of the most insightful theorists of both U.S. finance culture and its planetary networks, since the early 1970s, has been American writer Don DeLillo. In this chapter, I analyze DeLillo’s fiction and contend that the discursive and aesthetic dimensions of finance are integral to understanding the material circulation of capital through global networks. In several novels, including *Players* (1977), *The Names* (1982), *Underworld* (1997), *Cosmopolis* (2003), and *Falling Man* (2007), DeLillo presciently depicts the contemporary capitalist system as a

source of terrifying crisis, violent accumulation, and ahistorical innovation. His fiction explores macroeconomic trends and financial networks, but does so through the experiences of individuals — risk analysts, financiers, bankers, and even terrorists. By attending to the psychology of multinational capitalism, these texts chart the frequently obscured relation between individuals and interconnected totalities. DeLillo's novels also reveal the capacity of literature to explore terrifying networks through metaphors and aesthetics.

The third chapter — “Synful Systems: Computer Networks and Protocol Perspectives in Cyberpunk” — examines the fearful aspects of computer webs. From the birth of cybernetics in the 1940s to the construction of the U.S. military's ARPANET in the 1960s to the commercialization of the internet in the 1980s, computer networks have transformed global communication and inspired new social fears. I analyze this form of terror through a reading of American cyberpunk novels and films from the late twentieth and early twenty-first century that render the more frightening aspects of network technologies. Such dark speculative fictions as William Gibson's *Neuromancer* (1984), Pat Cadigan's *Synners* (1991), Marge Piercy's *He, She, and It* (1991), the Wachowski Brothers' *The Matrix* (1999), and Walter Mosley's *Futureland* (2002) do not simply reproduce abstract fears of sentient

network emergences that are a common genre convention of science fiction; rather, many of these works incisively explore the ways that technologies of interconnection can serve as metaphors for alternative communities that exceed the parameters of multinational capitalism. In all three of my opening chapters, I show the way that material network infrastructures and the cultural constructions of those systems in literature and media are inherently co-productive.

My final two chapters explore the way that literary and televisual works depict American hegemonic networks. The fourth chapter — “‘White Network’: The Racial Edge of American Power in Thomas Pynchon” — analyzes the structure of post-World War II American power through a reading of the encyclopedic novel *Gravity’s Rainbow* (1973). Pynchon’s fiction from *The Crying of Lot 49* (1966) on forges links between the systemic anxieties of global empire and centuries-old U.S. race ideology. Through both its aesthetics and encyclopedic form, *Gravity’s Rainbow*, in particular, explores the transition from the imperial nation-state system predicated on color lines to the postwar system of empire organized as a global network. The novel uses network metaphors to draw parallels between the political fiction of American power and the social fiction of race. In place of a system of planetary

control founded on inequality, the literary web of *Gravity's Rainbow* serves as an alternative vision of postwar American culture.

The fifth chapter — “Wired: The Network Forms of David Simon’s ‘Other America’” — uses HBO’s acclaimed television series *The Wire* (2002-2008) to explore U.S. social networks and the system of American-style capitalism that serves as their foundation. Through its five-year run, *The Wire* reveals the way that different nodes of the Baltimore city network — law enforcement, the drug trade, the legal system, the prison system, the school system, segregated city zones, political interests, and media networks — make up an American world plagued by poverty, corruption, and racial discrimination. As I contend, the show’s aesthetics both draw on and rethink forms as diverse as the networks of social science, the narrative webs of the Victorian multiplot novel, and the structurally invested form of the Greek tragedy. In playing with these forms, the show repeatedly breaks down distinctions between aesthetics and political thought.

The dissertation ends with a coda that considers the contemporary development of network aesthetics in interactive media. In particular, I examine a series of computer games that rely on network aesthetics. While many games such as Sony’s *24: The Game* (2006) feed into the politics of fear that have sustained the

network of contemporary American power, some innovative games, from Maxis's *SimEarth: The Living Planet* (1990) to the independently produced *Virtual Peace* (2009), offer more generative models of interconnection. The field of game studies reveals that media-specific analyses of game rules, control physics, platform constraints, economic contexts, and player communities lead to a richer interdisciplinary conception of network forms. Given the growing importance of digital media in the humanities, network cultures cannot be entirely understood without a study of the interactive aesthetics and dynamics of digital works. In this short look at current developments of network aesthetics, I argue that literary approaches to the study of narrative and form are integral to the future of visual studies and media theory.

0.6 American Fictions in a Culture of Interconnection

The New Economy — built on an expanded service sector, heavy investment in information technologies, and increased reliance on global finance — was founded on the organizational logic of the network. The rapid restructuring of American-style capitalism started with the work of Milton Friedman and other opponents of Keynesian economics in the 1950s and reached its apex by the 1980s in Manuel Castells calls “informational capitalism” (18). In place of bureaucratic structures, the informational society privileged the emergence of “network

enterprise" (163). This new model of the world, which provided the United States and other developed countries with a substantial advantage over their developing counterparts, was sold paradoxically through both a utopian and dystopian discourse. The wonders of so-called "free trade" and interconnected "globalization" nevertheless required the United States to serve as a watchdog that could eliminate military, economic, and technological network threats. This form of capitalism was founded on a combination of awe and terror — astonishment and fear — that used a form of the network sublime as its motivating concept.

American capitalism is based not only in structural paradoxes but also in numerous foundational ironies. The United States has positioned itself as a global champion capable of checking the dangers of an interconnected world. American power promises to fight the threat of terrorist networks, preserve the stability of volatile economic networks, and ensure the smooth worldwide expansion of technological networks that elude top-down control. In reality, however, U.S. dominance has been equally responsible for the same network threats it strives to combat. The global Salafi jihad and its anti-American network of terror was not an unmotivated external threat but a response to U.S. attempts to win the Cold War through military interventions in the Middle East. Financial crises in the late

twentieth and early twenty-first century have not been systemic anomalies that warrant a quick American regulatory fix but rather foundational aspects of the structure of capitalism itself. The recent danger posed by hackers and computer viruses is not a plague that requires American expertise to cure but a response to governmental and corporate attempts to achieve top-down control of the Internet. A careful study of networks reveals that, for several decades, American interests have contributed to the spread of political terror and the perpetuation of economic asymmetries around the world.

Contrary to the network language often adopted in the service of American power, the literary and media works I analyze suggest that networks are not inherently terrifying structures. Network science has already contributed to many productive developments. Newman, Barabási, and Watts offer several examples:

The study of the web, for instance, has led to the creation of new and powerful web search engines that greatly outperform their predecessors. The study of social networks has led to new insights about the spread of diseases and techniques for controlling them. The study of metabolic networks has taught us about the fundamental building blocks of life and provided new tools for the analysis of huge volumes of biochemical data that are being produced by gene sequencing, microarray experiments, and other techniques (ix).

In addition to such practical contributions, a literary study of networks also reveals powerful modes of self-reflexive and associative thinking. Such new modes of

thought bring with them different types of stories. The terror that has saturated American politics since World War II is parasitic upon and destructive of narrative. Given this damaging effect of terror in our time, we suffer from a dearth of attempts to represent the tragic structures and horrifying genealogies that undergird contemporary America culture. We are in dire need of better stories that can better imagine the relations between ourselves and others — stories that make us empathize with fellow human beings and fear for their well-being as we do for our own.

While this dissertation represents only a modest intervention into contemporary networks and their aesthetic dimensions, I hope it serves as one alternative narrative to the popular American utopian tale of “globalization.” Delving into the hidden depths of America’s operating system and its worldwide network, this analysis seeks to forge connections that have been disrupted or severed by overwhelming terror.

Chapter 1: The Terror Network and Other Fictions

DoD's "Defense in Depth" strategy should operate on the premise that the Department will "fight the net" as it would a weapons system.

— United States Department of Defense

In its analysis of military conflict, post-1968 political theory has frequently treated the network as an oppositional structure: a decentralized configuration that enables guerilla fighters to resist centralized national armies. The language of networks, however, has more recently entered the radar of the very military organizations it was once meant to challenge. Armed forces around the world have taken an interest in networks and adapted to distributed warfare. Unlike the radical decentralized guerilla networks of the 1960s, present-day networks are not inherently anti-governmental. As Alexander Galloway and Eugene Thacker explain in their analysis of network warfare, "All political regimes today stand in some relation to networks" (29).¹ Military strategist Shimon Naveh, the director of the

¹ The military's shift to new modes of network organization and combat does not entail the simple movement from centralization to decentralization. The DoD's "Information Operations Roadmap," which I discuss later in the chapter, is useful in demonstrating how an oscillation occurs between these organizational modes. In its imagination of information warfare in a network age, this military document calls for "more execution authority delegated to Combatant Commanders," but also repeatedly supports "Centralized IO planning and execution" (7). While acknowledging the benefits of distributed authority, the report ultimately concludes, "effective military deception requires centralized planning, security, and close integration with operational planning." (67). In this way, network warfare relies on a combination of centralization and decentralization. With a similar combination of hierarchal structures, protocol measures,

Operational Theory Research Institute that trains the Israeli Defense Forces, has even incorporated the work of philosophers Gilles Deleuze, Félix Guattari, and Guy Debord on decentralized tactics into his strategic curriculum (Weizman).² The American government has also adapted rapidly to network warfare, combining tactical theory, legal control, and the development of projects such as the Global Information Grid network.³ As Mike Hill observes in an analysis of the U.S. military's campaign for the "Revolution in Military Affairs," the early twenty-first century is characterized by net-centric warfare that wages a "culturally embedded soft war" by accounting for religion, biology, economics, language, and other components that make up the "total" grid of conflict (269 and 257).

and state-prescribed means of control, the Internet's decentralization rests on a foundation of centralized organization.

² The theoretical text that seems to have found the most military applications is Deleuze and Guattari's *A Thousand Plateaus: Capitalism and Schizophrenia*.

³ The government's influence over network development extends beyond military applications. Since the 1990s, the American libertarian vision of the Internet as a "borderless" medium that poses a challenge to the nation-state has proven to be an overstatement. As legal scholars Jack Goldsmith and Tim Wu contend, national governments have come to assert greater degrees of control over the management of the net. Although control over particular manifestations of the web has not always been possible — especially with the development of software applications like the illegal music file-sharing application *Gnutella* that distribute information across the web — national governments have found numerous enforcement methods to control Internet use within their own borders. By instituting stricter laws to govern cyberspace and by regulating ISPs, routers, cable lines, and fiber optic cables, governments have effectively managed countless network developments.

Since the 1980s, both academic and military theorists have used the language of networks to transform politics and combat.⁴ A key feature of the study of networks, as Galloway and Thacker suggest, is the changing nature of “political conflict”: the clash between friend and enemy as it transforms through electronic warfare.⁵ In an era of ongoing worldwide violence and instability, the political relationship of enmity is in need of significant reevaluation. With the emergence of

⁴ Cultural critics have resisted a predominantly scientific approach to the study of network structures by proposing alternative historical, philosophical, and political analyses of these interconnected architectures. Rather than settling for structural analysis and mathematical laws, such scholars have grappled with the social, political, and economic dimensions of networks. For example, Galloway and Thacker criticize the view of networks as an “apolitical natural law, operating universally across heterogeneous systems, be they terrorism, AIDS, or the Internet” (37). In his “Principles of Notworking,” Geert Lovink advocates a move away from a “science-centered ‘General Network Theory’” toward, in Lev Manovich’s terms, a “language of new media” that accounts for the complex cultural and historical substratum of network structures (7). Turning to the tactical and strategic applications of major scientific developments, Manuel De Landa takes a similar approach, tracing a long genealogy from early modern warfare to network combat that suggests the violent military origins of what have become primarily civilian technologies. Focusing on other social dimensions of present-day communications networks, authors such as Jack Goldsmith, Tim Wu, Yochai Benkler, and Lawrence Lessig analyze nation-state governance, economic production, and legal regulation in the continuing development of the Internet.

⁵ Galloway and Thacker tell an extended theoretical narrative about the transformation of warfare in the late twentieth century. In representing a movement from modernity to postmodernity, and again from postmodernity to a network era, they construct a tripartite genealogy that seeks to account for major trends in recent military organization. Each of their historical periods carries with it a dominant combative paradigm. First, there is a traditional politics of symmetry that encompasses the Allied/Axis struggle of World War II and the U.S./Soviet opposition of the early Cold War. Second, there is the postmodern politics of asymmetry that includes grassroots and guerilla movements and lasts roughly from the protest era of the 1960s through the collapse of the Soviet Union in 1989. Third, there is the contemporary era of network symmetry that pits network against network. In a sense, the third period, which encompasses the present day, combines attributes of the two preceding periods: comparative architectural symmetry and the tactical asymmetry that accompanies the network form. That is, despite the move toward greater structural balance in contemporary network wars, Galloway and Thacker acknowledge that networks are both internally asymmetrical and comparatively distinctive (23-4). To offer a concrete example of this third paradigm, in coming years, one of the major conflicts in this arena of symmetrical network warfare may be that between the new military Internet known as the Global Information Grid (to which I will return in the final section of this chapter) and burgeoning international terrorist networks. In this way, we find ourselves increasingly in a period when networks battle networks.

global networks, which include technological systems such as the Internet and biological systems such as emerging infectious disease ecologies, national boundaries are more porous and enemy actors are more amorphous than ever before. Departing from previous organizational structures, network architectures are inherently multi-nodal, decentralized, and volatile. Insofar as networks are characterized by self-transformation and internal instability, the political relation of *enmity* has become overshadowed increasingly by a more complex situation of *antagonism*. Indeed, a relation of antagonism among components of the same system, rather than wholly discrete enemy actors, proves foundational to distributed structures: “Any type of protocological control exists not because the network is smooth and continuous, but precisely because the network contains within it antagonistic clusterings, divergent subtopologies, rogue nodes. (This is what makes them networks; if they were not internally heterogeneous, they would be known as integral wholes.)” (Galloway and Thacker 45). In cellular structures, as in computer webs, nodal organizations and clusterings interact through constantly shifting relations of cooperation and competition.

Galloway and Thacker’s concept of antagonism challenges us to change the way we think about political conflict and military strategy in the era of networks. With the defeat of the Axis forces and the fall of the Soviet Union, enmity has

gradually lost its primarily national character. With the decline of hegemony that is focused exclusively in the nation-state, the dominant American enemy has simultaneously swelled to global proportions and grown less distinct. A new *type* of enemy, at once diffuse, unpredictable, multiple, and infiltrative poses a threat to American sovereignty. For more than three decades, the American military-industrial-media-entertainment complex has obsessively classified and analyzed this new breed of foe: the terrorist network. As familiar as this label has become, especially since the attacks of September 11, 2001, the terrorist network remains an inherently strange figure: fundamentally oxymoronic in its connotation of both a destructive force and a creative matrix of connectivity.⁶ Since the 1970s, terrorist networks have served as both discursive objects of political strategy and actual nightmarish entities that persistently haunt the American imaginary.⁷ It will be the

⁶ According to cybernetics, a network is always already both an organized system of communication and an entropy-producing configuration. As Norbert Wiener points out, the second law of thermodynamics mandates that any study of communication and information must take into consideration the fact that systems move toward entropy. He explains that “in control and communication we are always fighting nature’s tendency to degrade the organized and to destroy the meaningful; the tendency, as Gibbs has shown us, for entropy to increase” (17). Given their significant constitutional complexity, networks also carry the threats of entropy, disruption, and internal disintegration.

⁷ As early as the 1970s, when U.S. intelligence agencies identified terrorist networks as emergent threats, the military complex initiated a substantial transition to a network infrastructure that would support a new model of “cyberwar” or “infowar.” But the relationship between the state and its new enemy has never been unidirectionally causal. Even as the history of warfare is one of constant adaptations between rivals, it is inaccurate to say that the network-centric paradigm shift was initiated exclusively as a response to the rise of hostile networks. Western military complexes may have adjusted to terrorist tactics in the latter half of the twentieth century, but the strategic use of terror and networks predates modern terrorism in the 1970s, and even international proto-network guerilla operations in the 1960s. A direct forerunner of status quo network antagonism is evident in the WWII blitzkrieg strategy of the German Wehrmacht, which represents one of

work of this chapter to defamiliarize both the concept of “terror” and “networks” in order to make sense of and destabilize cultural representations of this new enemy assemblage.

Standard accounts of “terrorist networks” as independently emergent enemies that necessitate a forceful military response are not adequately historical or conceptually complex. In the late twentieth century, the United States encouraged the emergence of these distributed foes in order to win the Cold War, but failed to realize the subsequent threat they would pose to American power. Indeed, numerous military, academic, and cultural texts about terrorist networks reveal the way that American discursive framings make possible and even feed a network warfare strategy. Instead of deconstructing terrorist networks and, in the process, denying their dangerous reality of as empirical structures, it is vital to attend to the contexts that brought such networks into existence and allowed them to persist.

the earliest couplings of psychological terror and contemporary network organization in the history of warfare. De Landa has a particularly thorough reading of blitzkrieg in the context of network warfare. As he writes, “In a sense, blitzkrieg was not the name of a new tactical doctrine but of a new strategy of conquest, which consisted of terrorizing a potential target through air raids and propaganda and then breaking up its will to resist through a series of armored shock attacks. In this sense the target of a blitzkrieg was less the enemy’s forward defenses than the morale of its leadership” (75). Through a coordination of radio communications as well as a vast human network, blitzkrieg was enabled for the first time: “Men and machines had to be meshed together to create a tactical formation that was more than the sum of the parts” (75). Since the blitzkrieg of WWII, network warfare has extended to the military realms of weapons, tactics, strategy, and logistics. For an extended history of state terror, see R.J. Rummel’s *Death by Government*.

Terrorist networks, like all networks, must be treated both as material infrastructures and metaphorical figures of interconnected totality. For this reason, focusing on linguistic and aesthetic constructions of network antagonism is crucial to a structural analysis of both these organizations and the broader range of contemporary political relations.

Given the inherent multiplicity of networks, it is imperative to think across varied cultural forms and media in order to understand these configurations. My analysis of terrorist networks focuses primarily on four contemporary texts: a government document (the Department of Defense's "Information Operations Roadmap"), a journalistic exposé (Claire Sterling's *The Terror Network*), a social scientific study (Marc Sageman's *Understanding Terror Networks*), and a Hollywood film (Stephen Gaghan's *Syriana*). The network aesthetics that pervade my selected texts — sensory evocations, formal experiments, and narrative innovations that channel the network form — offer a glimpse into the otherwise unimaginable essence of interconnected totality and allow us to read against the category of the "terrorist network." Through my critique of the "terrorist network," and particularly my reading of *Syriana*, I rethink networked enemy actors in terms of their position in a series of concatenating relations. To that end, beneath the enemy language of *terrorist networks*, this chapter identifies what I call the *terror network*: an

interconnected and internecine structure that involves both state and anti-state forces. While our culture of preemptive security attributes violence and terror to anti-civilizational forces, a more foundational destructiveness inheres in Western democratic governance and global capitalism.

1.1 Friend, Enemy, Network

It is important to understand the broader theoretical and historical context in which the U.S. has come to define terrorist networks as the contemporary era's primary enemy threat. In political philosophy, the "enemy" has taken on particular significance as a term that defines sovereign power ever since the modern nation-state form emerged in the sixteenth and seventeenth centuries. Throughout modernity, the fundamental relationship between any actors on the world stage has been grounded in the categorical distinction between "friend" and "enemy." Indeed, as realist political philosopher Carl Schmitt argues in *The Concept of the Political* (1932), in the modern era, the distinction between friend and enemy came to define what we think of as the "political" (26). Schmitt acknowledges that, in political rhetoric, the enemy is frequently characterized as an Evil force. In crafting his theory of the enemy, however, Schmitt himself treats the term with a degree of neutrality, electing to suspend these moral connotations and to define the "enemy" as a mere stranger rather than a malevolent foe. As he notes, "the political enemy need not be

morally evil or aesthetically ugly; he need not appear as an economic competitor, and it may even be advantageous to engage with him in business transactions. But he is nevertheless, the other, the stranger” (27). In other words, “The enemy is *hostis*, not *inimicus*” — political, not personal (28).

Adopting an increasingly neorealist approach to international relations, late twentieth-century American political strategy (that mode of war by other means that was perfected during the Cold War arms race and its global policing operations) has been heavily influenced by Schmitt’s idea of the enemy as a neutral actor. The maintenance of U.S. economic power and military might has favored precisely this kind of structural understanding of sovereign states and global actors. For all of the purported abstractions of neorealism, however, the concept of the enemy has never lost its emotional charge.⁸ Since the rise of terror as a political technology and a strategic affect in the Cold War years, it has become impossible to think of the enemy in dispassionate terms. Even more recently, the announcement of the American War on Terror — with its neoconservative characterization of anti-

⁸ On the contrary, the development of photographic and film technologies in the twentieth century only expanded the parameters of representational warfare that allowed a more elaborate demonization of enemy forces. Certainly, beginning with Joseph Goebbels’s innovative tenure as Reich Minister of Public Enlightenment and Propaganda in Nazi Germany, between 1933 and 1945, the image of the enemy was transformed into a central tool of martial competition (De Landa, 188-9).

American terrorists as “Evil” agents — demonstrates that the language of enemies is rarely neutral in actual usage.

Depictions of the enemy — particularly the terrorist network — have become essential to the execution of contemporary distributed warfare. Given the strategic dimension of representation, network conflict has relied on the older tradition of information warfare: a key branch of military strategy that was theorized as early as Sun Tzu’s ancient text *The Art of War* in the sixth century B.C., instituted in the reconnaissance missions of the Napoleonic Wars in the early nineteenth century, and upgraded to absolute centrality with the cryptographic efforts to crack the German Enigma machine during World War II. In the Cold War years, the development of this trend continued with the mutual espionage between NATO and the Warsaw Pact. During this struggle, incorporating and defending computer networks became the latest extension of information warfare. With the rise of these interconnected network infrastructures, digitally encrypted information became more vulnerable than ever.⁹

⁹ An exemplary case of the network complications of information security is that of FBI Supervisory Special Agent Robert Hanssen who, over twenty-two years beginning in 1979, gathered classified government documents, computer diskettes, and other data for the Soviet Union and Russia. This incident — called “the worst intelligence disaster in U.S. history” by a U.S. Department of Justice review — was made possible by Hanssen’s ability to hack FBI networks (United States Commission for Review of FBI Security Programs). It also demonstrated the high stakes of information warfare in a computer age supported by global network technologies. More recently, this incident was popularized in Billy Ray’s 2007 film *Breach* (starring Chris Cooper and Ryan Phillippe).

While internal network breaches have been a concern since the start of the Cold War, it is only during the late Cold War that external enemy networks emerged as key U.S. military targets. Today, in the early twenty-first century, the United States still contends with sovereign political threats (e.g., “rogue nations” such as Iran and North Korea) and economic rivals (e.g., China and the European Union), but it is the more decentralized menace of terrorist networks that represents or, at least, is widely perceived as the primary challenge to American security. In line with this shift from sovereign to network enemies, the United States has undergone a more dramatic restructuring of its national defense: a change not in mere *degree* but in *type*. At numerous levels of operation, terrorist networks have played a key role in an irreversible change in the military’s approach to strategy, logistics, and technological development. Already, in the 1980s and 1990s, the Pentagon announced that two of its key military research initiatives would involve “autonomous weapons and battle management systems.” More a public relations maneuver than a realistic assessment of the state of artificial intelligence technology and systems development, the path charted in these years nonetheless transformed the nature of warfare. Responding to emerging threats, including criminal hackers, terrorist networks, and computer spies, U.S. security forces identified a new enemy category and set the foundation for a series of major adaptations (De Landa 2).

Amidst the strategic transition to network security, the language of the “enemy” has only achieved greater cachet. Nevertheless, politically, it is far from obvious that a terrorist network can or should be conceived as an enemy. Granted, even Schmitt’s terminology is by no means exclusive to the state or its actors.¹⁰ That is, the non-sovereign nature of terrorist networks does not exclude them from “enemy” status vis-à-vis a sovereign state. Even so, the category of enemy implies an identifiable hostile force. In this sense, terrorist networks complicate the nature of the political and friend/enemy relations. Terrorist networks, as opposed to territorially limited nation-states and other coherent rogue assemblages, are radically distributed, changeable, and resilient to disruption.

There is a significant difference between “facing” an enemy other and “interfacing” with a hostile network collective.¹¹ Even with all of its internal contradictions and international complications, however, the traditional language of enemies has continued shaping American policymaking and military strategy. Binary enmity is easier to understand than network antagonism. For this reason, the old discourse of enemies is still pervasive as ever today, and despite an increased

¹⁰ In defining the “political” — as opposed to “politics” which is more closely tied to national affairs — Schmitt acknowledges that the friend/enemy distinction has always extended beyond the realm of the state.

¹¹ For an extended conversation about the relation of “facing” an enemy, see Galloway and Thacker, 80. Here, they consider the political theory of Carl Schmitt and the philosophical writings of Emmanuel Levinas in the context of networks.

strategic and logistical shift to electronic warfare, a concurrent linguistic change in the way we approach hostile networks has not taken place. Instead of developing an entirely new vocabulary for network warfare, the U.S. government has performed, at most, a minor modification of Cold War rhetoric. While global conflict has grown more complex and variable than ever, it is still fundamentally framed in bipolar terms. In other words, the hostile network is still modified to fit the “enemy” frame inherited from the Cold War.

A groundbreaking military text — the U.S. Department of Defense’s comprehensive 2003 strategic plan, the “Information Operations Roadmap” — illustrates the consequences that follow from the ahistorical conflation of a traditional “enemy” language with an emerging “network” discourse. Certainly, the word “roadmap” in the document’s title already signals continuity between an older imperial cartography and the contemporary dominance of a new type of network topology. Nevertheless, for the first time, this blueprint represents electronic warfare as a primary rather than supplemental aspect of military strategy, suggesting that the military come to recognize the “importance of dominating the information spectrum” by “transforming IO [Information Operations] into a core military competency on a par with air, ground, maritime, and special operations” (U.S.

Department of Defense, 4).¹² As this document explains, the military's expansion into network topography brings with it an almost megalomaniacal desire to control "the information spectrum" in its entirety. Unlike the earlier interest in domestic defensive networks (e.g., the 1956 interstate highway system and the 1969 ARPANET web), the desire to control the complete information spectrum in order to wipe out all potentially inimical networks is offensive and decidedly international, if not cosmic, in nature. As the DoD recommends, the "E-Space Analysis Center should produce operationally actionable, targeting quality information on foreign electromagnetic capabilities and networks" (42). In this piece of advice, networks are not merely the technological means by which "targeting" takes place but also the objects "on" which experts gather "targeting quality information."

¹² The shift to electronic warfare parallels the transformations of war making that came with the introduction of aerial warfare starting with the Italo-Turkish War in 1911, the First Balkan War in 1912, and World War I in 1914. In the final chapter of *The Nomos of the Earth in the International Law of the Jus Publicum Europaeum* (1950), Carl Schmitt argues, "The spatial perspective of the separated surfaces of land and sea had to change fundamentally when an independent third type of arms — the air force — took its place beside the army and the navy. At first, the new type of weapon was considered to be a mere reinforcement and augmentation of both land war and sea war, to be a mere appurtenance to and component of old weapons. For this reason, the air force was considered in terms of the old concepts of enemy, war, and booty, together with all their old orientations to a separate theater of war. Soon, however, it became evident that this reinforcement and augmentation had altered fundamentally the essence of the theater of war and the attendant space on which it was based" (313). Later, Schmitt explains that unlike the concepts of "booty" and "prize law" central in earlier sea war, "the only purpose and meaning of an air raid is destruction" (316). While maintaining the goal of maximum destruction of the enemy, the form of electronic warfare that I explore here also seeks to minimize combatant casualties. Precision-guided munitions such as smart bombs and unmanned aerial vehicles (UAVs), seek to distance the combatant from enemy targets.

The language of the “Information Operations Roadmap” recommendations is antiseptically laborious and theoretical. In effect, this technically benign prose distracts the reader from the ultimate objectives of the document. This system update enables war-making operations that produce mass violence and threaten global privacy. As one of the enumerated developmental goals of the roadmap reads, the DoD seeks to “provide a future EW [Electronic Warfare] capability sufficient to provide maximum control of the entire electromagnetic spectrum, denying, degrading, disrupting, or destroying the full spectrum of globally emerging communication systems, sensors, and weapons systems dependant on the electromagnetic spectrum” (61). The alliterative flourish in this passage only emphasizes network development as a means of the total and relentless destruction of the enemy. Despite the report’s suggestion of warfare that pits machines against machines, human casualties cannot be removed from the picture. Even in conflicts between networks, collateral damage, however redefined and legitimated through the culturally-conscious language of humanist military analysts, cannot be eliminated.

The irredeemable structural problem with the “Information Operations Roadmap” as an overview of developmental goals is that its discursive confusion, in turn, produces material failures in American foreign policy and technological

development. In outlining an admittedly major change in U.S. military organization, the document confuses two incompatible languages of identifiable enemies and distributed networks. In a key passage, the Department of Defense even announces that it “will ‘fight the net’ as it would a weapons system” (13). At a discursive level, the analogy between the net and standard weapons systems, as well as the imperative to “fight” that net, elides the radical shift that has taken place during the network era. This characterization is far from anomalous. As Galloway and Thacker explain, networks have been widely characterized as inherently inimical weapons systems: “The U.S. military classifies networks as weapons systems, mobilizing them as they would a tank or a missile. Today, connectivity is a weapon. Bomb threats and terror alerts inject intangible anxiety into the population just as a real bomb might do” (27).

Although in abstract metaphorical terms it is possible to envision a strategy of targeting threatening networks, what exactly does it mean to “fight the net”? If we are indeed in an age where all major systems and infrastructures take a network form, what does it mean to treat the very ground on which we stand as a battle space from which enemies might emerge? Certainly, the slippage between networks as external enemies and networks as the fundamental landscape of warfare is a telling symptom of the ambiguity inherent in the most recent military paradigm. Instead of

treating the network as a connective structure to which the DoD itself belongs, the department treats this configuration as an externalized enemy. The inexactitude that accompanies a conflation of enemies and networks, whether intentionally strategic or simply left unexamined, will have long-term consequences for American military policy and security interests. The announcement of proliferating future threats already contributes to an atmosphere of ubiquitous terror. In other words, in legitimating themselves through the language of inimical terrorist networks, governmental systems come to produce the very terror they purport to eliminate.

1.2 Frames, Links, Simulations

The United States government's construction of the War on Terror as a central component of American foreign policy suggests that international terrorists represent the most dangerous contemporary threat to global peace. As terrorists thrive on secrecy, however, our understanding of their organizational modes is perpetually partial. Despite an extensive intelligence-gathering apparatus that is devoted to monitoring terrorist operations and sifting through a glut of information, this enemy comes to be known, in large part, through political framings and cultural representations. Literary, academic, military, and governmental narratives have all attempted to fill the epistemological abyss represented by this terrifying entity. Since the late Cold War, journalistic accounts have played a particularly powerful role in

supporting a new type of mediated terrorism and influencing the shape that terrorist networks take in the popular imagination.

In *Framing Terrorism*, Pippa Norris, Montague Kern, and Marion Just contend that “terrorist events are commonly understood through news ‘frames’ that simplify, prioritize, and structure the narrative flow of events” (10). While such media frames can facilitate an understanding of terrorism and U.S. policy among the news-consuming public, they frequently fuel a policy of preemptive warfare and continuous terror. Since the 1970s, media-induced fear has been functionally inseparable from a proliferation of terrorist attacks. For better or worse, at the level of global politics, terrorism itself has arguably become the dominant post-Cold War news frame: the key conceptual lens through which we make sense of military policy. Just as political and media sources once contended that the Soviet Union posed the primary obstruction on the path to global democratic governance, in the late twentieth and early twenty-first century, it has been terrorism and the figure of the terrorist network that indefinitely delay democracy’s Messianic promise of the end of history.

The media frame of the terrorist network as a structure of organized destruction can be traced back to the coverage of the international terrorist threat during the *détente* of the 1970s. One particularly instructive example of the media

framing of terrorist networks as a global threat is Claire Sterling's 1981 journalistic bestseller *The Terror Network: The Secret War of International Terrorism*. In this late Cold War text — a re-escalation era exposé that supports the Reagan administration's contention that the Soviet Union was training and funding a vast assemblage of international terrorist cells — the object of study is the amorphous terrorist network. In a manner that is less descriptive than symptomatic of a fear of an incomprehensible new enemy, Sterling presents the reader with unconfirmed speculation about a nefarious network supported by the Soviet Union, Cuba, and Palestine, and grounded in a major training camp in Havana.

Weaving vague suppositions into self-evident facts, Sterling observes, "The fact that there is such a thing as an international terrorist circuit, or network, or fraternity — that a multitude of disparate terrorist groups have been helping one another out and getting help from not altogether disinterested outsiders — is hardly classified information anymore" (10).¹³ Through an oscillation from a "circuit" to a

¹³ The schizophrenic interplay between secrecy and knowledge in the book is worth noting. While the text's subheading suggests that the book describes "The Secret War of International Terrorism," Sterling is also insistent that the information about terrorist groups is "hardly classified anymore." A similar paradox is evident in her early claims about the sources of her research. On the one hand, she issues a disclaimer about the clandestine nature of the intelligence surrounding terrorist networks, claiming, "I had no access at all to the CIA while gathering material for this book, since its agents were formally forbidden to talk to journalists abroad" (3). Despite this major hole in her information gathering, she claims, just a few pages later, "There is enough evidence lying around to pole-ax the reader" (10). While such inconsistencies could be dismissed offhandedly as signs of an imprecise argument, I believe this oscillation between the secrecy and the openness of information is symptomatic of the broader cultural understanding of terrorist networks

“network” to a “fraternity” — considerably different organizational structures — Sterling reduces a complex emergence to the status of an open secret that, she claims, is hardly in need of elaboration. While she discounts a paranoid thesis of total worldwide conspiracy, she nonetheless paints a picture of a functional network: “if these terrorist bands may not all be welded, they are linked” (10). Through a series of suspenseful narratives about terrorist events that took place in the 1970s — what Sterling calls “Fright Decade I” in apparent anticipation of the 1980s as “Fright Decade II” — the text employs a sensationalist and paranoid aesthetic in order to construct the major nodes of an interconnected terrorist network.

Throughout her book, Sterling inadvertently dramatizes the status of terrorist networks as both empirical objects and discursive constructs of popular imagination. From the opening lines onward, the prose of *The Terrorist Network* blurs the line between reporting and fiction. In the prologue, she frames her own work as an objective account — an honest piece of investigative journalism that reveals a largely clandestine phenomenon. As she insists, “This is not a book of fiction. It deals with facts” (4). Ironically, on the very next page, Sterling goes on to narrate the story of the OPEC affair (a comparatively minor terrorist event that took place in 1975) in a

and even networks as such. The fear of inimical networks, for instance, derives from a simultaneous fear of their known operational capabilities and their fundamental inaccessibility.

mode that becomes practically indistinguishable from the suspenseful melodrama of a novelistic techno-thriller or a Hollywood action film. In this description, she employs stylized dialogue that is interspersed with speculative descriptions of terrorists who are treated as clichéd villains. The opening lines of this passage demonstrate the blurring between journalism and fiction:

“I killed two,” the girl said, glancing up at her bulky companion with a small smile of content.

“Quite right; I killed one myself,” he replied.

Which of them was Sheikh Yamani, she wanted to know, and he nodded toward the Saudi Arabian oil minister who had just come out from hiding under a desk. They were pleased with the way things were going (though she would be less pleased the next day when he told her they wouldn’t be killing Sheikh Yamani after all. “Fuck,” she remarked on that occasion) (5).

If this is a book trafficking in factual content, it takes on a decidedly fictional form. In this passage, Sterling employs unrealistic dialogue, third person omniscient narration, internal focalization, and reductive characterizations. All of these techniques endow a purportedly empirical journalistic study with the methodological rigor a Tom Clancy novel.¹⁴ The fact that this narrative sequence and others like it are loosely based on actual events simply makes them more insidious.

¹⁴ In his review of *The Terror Network*, Konrad Ege argues, “Sterling isn’t particularly concerned with documented facts; her purpose is to create impressions, suspicions, to hint at possibilities. Sterling’s terrorist threat is everywhere, and there is hardly a terrorist movement that has not been supported by the Soviet Union or ‘surrogate forces’” (124).

More generatively, this formal haziness demonstrates precisely the way that fact and fiction are coproductive in constructing terrorist networks.

Rather than merely describing the rise of a particular mode of networked terrorism, Sterling relies on the terror of networks to convey her argument. She represents the technologically augmented terrorists, throughout the book, as inhuman automatons: brainwashed extremists who undertake machinelike operations. She explains, relying more on emotionally charged rhetoric than evidence, "By now they are mass-produced. The machinery practically runs itself, and anybody who wants to be a terrorist can get to be one" (9). In this passage, Sterling's slippage between an industrialized discourse of "machinery" and the post-industrial language of "networks" is symptomatic of a broader analytic inexactitude. Terrorists seem to be terrifying both because they are indistinguishable from moral human beings and because they belong to a vast global network. Like the pod people from Jack Finney's classic science-fiction novel *Invasion of the Body Snatchers* (1955), Sterling's Communist-trained terrorists quietly invade a normative civil society.

Instead of treating terrorism as a culturally augmented category and terror as a historically specific affect, Sterling reproduces fear through a series of paranoid speculations. Stylistically, *The Terror Network* demonstrates some of the means by

which journalistic language has established the epistemological and ontological parameters of terrorist networks. Sterling's discourse, however hyperbolic, reveals the strategic utility of these assemblages as driving forces of foreign policy and military development. While terrorism arguably operates at a level of excessive criminality, which seeks to destroy rather than simply transgress sovereign law, there are a number of discursive parallels between the figure of the terrorist network and the figure of the delinquent in Michel Foucault's *Discipline and Punish*. For Foucault, even as the modern penal institution falls short of actual progress, the law and its carceral infrastructure succeeds by producing the very field of transgressive practices that it subsequently regulates. That field is organized around the delinquent (*Discipline and Punish* 272-7).¹⁵ Similarly, the War on Terror, which is widely acknowledged as lacking an identifiable end and failing to achieve concrete goals, reveals a kind of built-in success. Insofar as it names and therefore stabilizes the category of "terrorist" through discourse, this war transforms an unknown entity

¹⁵ Toward the end of his history of punishment and the prison, Foucault asks why we bother with prison reform if the penal institution constantly falls short on countless fronts. As he puts it, "what is served by the failure of the prison?" (272). In response, he argues that even in its seeming malfunction, the prison plays a vital social role: "the prison, apparently 'failing', does not miss its target; on the contrary, it reaches it, in so far as it gives rise to one particular form of illegality in the midst of others, which it is able to isolate, to place in full light and to organize as a relatively enclosed, but penetrable, milieu." (276). In other words, it is meaningless to say merely that a prison is unsuccessful in curbing crime because, in a broader social sense, the "prison has succeeded extremely well in producing delinquency, a specific type, a politically or economically less dangerous — and, on occasion, usable — form of illegality." (277). Thus, instead of regulating already-existing forms of illegality, the penal complex gives rise the very field of criminal practices that it comes to regulate. According to Foucault, this form of power is exercised primarily through language.

into a knowable object. Just as the “delinquent” cannot be supervised until identified, so the “terrorist” cannot be known and pursued without the institution of a concrete war. If the conceptual construction of “terrorism” is key to the modern technology of power, the particular configuration of the “terrorist network” is absolutely integral to the continuation of the dominant mode of contemporary political antagonism. The label of “terrorist” denotes a violent, asocial, and mysterious figure, whereas the “terrorist network” takes this affect of the unknown to its most nebulous extreme. Collective, distributed, and constantly mutating, the “terrorist network” classifies and, to an extent, domesticates an amorphous fear by reducing it to an easily comprehensible linguistic unit.

In the end, perhaps the greatest danger of framing the terrorist network as the key twenty-first century political threat is simply the legitimacy it proffers to the eternal continuation of the War on Terror.¹⁶ In being named, the terrorist network becomes the central figure — the linguistic mascot — of a war that cannot posit

¹⁶ Through both media and military framings, the creative act of naming the terrorist network becomes closely linked to the destructive process of perpetual war making. Already in Foucault’s genealogy of the birth of the prison, we see a deeper social war signaled by the discursive construction of the criminal. It is precisely the media reports of criminal activities — practices constituted by all sorts of frames and names — that propagate the ongoing cycle of crime and punishment and uphold the penal system despite its sundry failures. As Foucault puts it, “The criminal *fait divers*, by its everyday redundancy, makes acceptable the system of judicial and police supervisions that partition society; it recounts from day to day a sort of internal battle against the faceless enemy; in this war, it constitutes the daily bulletin of alarm or victory.” In short, it is “a permanent state of conflict” that defines the penal system per se as well as the sprawling web of force relations that constitute contemporary power (*Discipline and Punish*, 286).

peace as its terminal point. In an era of total war, the terrorist network is no longer the “enemy” that, in victory, can be converted to a “friend.” Such a network is too alien a configuration and, unlike even rogue nations, which are after all still nation-states, this non-sovereign formation proves inassimilable. In such neorealist political terms, we cannot completely destroy a global terrorist network. At best, we can hope to deter its operations or destroy some of its incessantly roving hubs.

Sterling’s account is but one among many texts that construct this enemy figure. Popular culture is overflowing with representations of inimical webs, including techno-thriller novels such as Sheldon Filger’s *King of Bombs* (2006), films such as Pete Travis’s *Vantage Point* (2008), television shows such as *24* (2001-2008), and multiplayer computer games such as *Counter-strike* (1999). Together, these texts and media produce a dominant cultural understanding of terrorist networks. In their very sensationalism, these productions reveal that terrorist networks are, in the most complex sense of the word, fictions. Of course, a fiction is not completely imaginary or immaterial. Fictional narratives frame our understanding of the world and affect our actions toward others. In this sense, the fictional or constructed status of terrorist networks is profoundly real. Recalling Jean Baudrillard’s theory of “simulation,” it is possible to say that terrorist networks, while structurally false, come to *produce* real

symptoms that constitute politics and enable war making.¹⁷ Terrorist networks, like all networks, are paradoxical entities: real and fictionalized, being and becoming, communicative and disruptive.¹⁸ Even as cultural construction is an inevitable aspect of social and political engagement, the current framing of terrorist networks is the product of a problematic history that has contributed to destructive trends in global policymaking.

1.3 Blowback: Mis-Understanding Terrorist Networks

Sterling's book is a particularly extreme — though by no means exceptional — example of the way terrorist networks are represented in American popular

¹⁷ Initially conceived as the modus operandi of late capitalism's consumer society, Baudrillard's "simulation" becomes a particularly apt theory — both in its substance and accompanying metaphors — in an age of electronic warfare and networks. In Baudrillard's usage, simulation describes a process through which reality comes to be shaped by models that have little correspondence to the actual world around us. Simulation, then, is the condition of a model preceding the real — it is a copy of something that never existed. In further defining simulation, Baudrillard posits a critique of the overly simplistic distinction between the real and the imaginary that is particularly applicable here. Situating this process beyond the realm of mere pretending, he writes, "Therefore, pretending, or dissimulating, leaves the principle of reality intact: the difference is always clear, it is simply masked, whereas simulation threatens the difference between the 'true' and the 'false,' the 'real' and the 'imaginary'" (3). Instead of a mode of invariable *being*, simulation relies on a more dynamic mode of *becoming*. In the terms of network science, simulation operates as a kind of emergence: a coming into being. Therefore, insofar as simulation is a productive and dynamic state, it is different from simple pretending. Baudrillard explains, citing Emile Littré's distinction between falsification and simulation, "Whoever *fakes* an illness can simply stay in bed and make everyone believe he is ill. Whoever *simulates* an illness produces in himself some of the symptoms." (3). Faking an illness maintains the difference between the real and imaginary whereas simulating an illness produces actual aspects of the state that is being simulated. In this sense, the terrorist network is simulated rather than faked. It is a structural fiction that comes to take on effects both real and violent.

¹⁸ Arguably, informatic networks as such are the infrastructure of contemporary simulation. Instead of producing mere fictions, the Internet makes information real. As Manuel Castells puts it, "the network enterprise makes material the culture of the informational/global economy: it transforms signals into commodities by processing knowledge" (172). In other words, the informatic network fulfills its potential by coming increasingly to realize binary data and digital knowledge. It is this process of simulation that transforms encoded constructions into real-world material entities — that fundamentally defines networks.

culture. Especially since the events of September 11, 2001, however, countless political and social scientists have taken a more empirical approach to understanding terrorism. A notable contemporary application of network theory to the study of terrorist networks is Marc Sageman's socio-psychological study, *Understanding Terror Networks*. Sageman's book insists on the growing convergence between modern terrorism and network architecture. As he announces in the introduction, "A new type of terrorism threatens the world, driven by networks of fanatics determined to inflict maximum civilian and economic damages on distant targets in pursuit of their extremist goals" (Sageman vii). Drawing from a background in network science, psychiatry, and ethnopolitical studies, Sageman focuses his analysis on the recent Salafi jihad: the global terrorist movement that includes al Qaeda as one of its prominent hubs.¹⁹ He characterizes Al Qaeda, in

¹⁹ Sageman argues that Saddam Hussein's invasion of Kuwait in August 1990 constituted a key historical turning point for the Salafi jihad. Although Salafists were opposed to the invasion and even offered assistance in combating it, they became offended by the U.S. intervention in what was perceived as a local rather than global affair (37-8). But it is worth noting that, even after the fall of Kabul in 1992, carried out with Saudi and U.S. support, "the militant Islamist movement was not a coordinated global jihad but a collection of local jihads, receiving training and financial and logistic support from the vanguard of the movement, al Qaeda" (38). During this period, most efforts by al Qaeda and related groups concerned the liberation and protection of Muslim lands. It was arguably not until the mid-1990s that al Qaeda transformed from a Middle Eastern faction to a global movement, deciding actively to target the "far enemy" of the United States (39). Sageman argues that the key date that made the U.S. a key object of the Salafi jihad was Osama bin Laden's August 8, 1996 declaration of "War Against the Americans Occupying the Land of the Two Holy Places (Expel the Infidels from the Arab Peninsula)" (18-9). More officially, on February 23, 1998, the global Salafi jihad was cemented through the formation of the "World Islamic front," which included bin Laden, Ayman al-Zawahiri, and others (47). This event coupled with the August 7, 1998 bombings of U.S. embassies in Nairobi and Dar es Salaam marked a major shift from defensive measures protecting Muslim lands to offensive measures against the U.S. (47-8).

particular, as “a self-generated network with unusual characteristics of robustness and flexibility rather than one created by the intention of bin Laden” (183). Even as it relies on the generally benign “robustness and flexibility” of networks as its *modus operandi*, Sageman explains, “the global Salafi jihad is a threat to the world. Its theater of operations spans the globe, and its apocalyptic vision melts away any barriers to its planned atrocities” (175).

For Sageman, there are two related senses in which the Salafi jihad relies on networks: one functional and the other structural. Functionally, terrorists around the world have made practical use of networked communication technologies since the 1990s to facilitate internal communication and disseminate information to the world. For nearly two decades, technologies, including cell phones, laptops, and websites have “enabled a global jihad based on a loose, decentralized network of mujahedin transcending the limitations of face-to-face interaction” (159). Much as terrorists used audio and videocassettes in earlier decades, current terrorist networks depend on the Internet to propagate ideology and plan operations. Notably, in describing this development, Sageman avoids the extremes of techno-determinism or technophobia. Even as he explains the increased terrorist reliance on networks, he also concedes that a network is always, at the very least, a double-edged sword. That is, even as informatics networks endow terrorism with a global presence, “too great

a reliance on this new technology leaves the jihad vulnerable to sophisticated monitoring of communication and triangulation of its source” (159).²⁰

The second sense in which terrorist groups have burgeoned into networks — the structural — is more profound and, from the standpoint of counter-terrorism efforts, more insidious than the first. Assisted by network technologies, groups such as al Qaeda have come to link their cells in a network configuration. With human links and hubs allowing for an extension beyond national borders, these groups have grown more decentralized than ever.²¹ For example, Sageman explains that, contrary to popular opinion, terrorist networks do not develop through top-down recruitment or brainwashing. Rather it is social affiliation — including friendship,

²⁰ Sageman’s claims about the growth of terrorist communities through online communication are not based on a careful analysis of new media. For instance, he argues, “Because of its virtual nature, the Internet community has no earthly counterpart and becomes idealized in the mind of surfers” (161). Although the Internet does, in fact, promote decentralized socialization, the field of new media studies has also emphasized the embodied and material aspects of network interfacing. Furthermore, recent work on social online networks suggests that such spaces are not completely abstracted in the minds of users. Nevertheless, Sageman’s claim about non-material online social networks does lead him to an interesting observation about the nature of terrorist organizations. Regarding members of terrorist networks, Sageman writes, “They become embedded in a socially disembodied network, which, precisely because of its lack of any anchor to any society, is free to follow abstract and apocalyptic notions of a global war between good and evil” (151). While I continue to insist on the embodiment and situatedness of social online networks, the seeming lack of borders of such networks may support an abstract struggle between good and evil that becomes increasingly removed from material historical relations.

²¹ Contemporary terrorist networks are certainly decentralized. As Barabási explains, al Qaeda avoided a centralized or tree structure, opting instead for the self-organization of a “spiderless web” with a series of primary hubs (222). Nevertheless, it remains an open question (and one beyond the scope of this chapter) whether these decentralized networks are ever truly distributed. As Galloway and Thacker explain, “In graph theory, a ‘distributed’ graph exists when the hub/leaf split disappears and all nodes have approximately the same degree” (43). In this sense, most terrorist networks seem to be decentralized (e.g., “a core ‘backbone’ of hubs each with radiating peripheries”) but not distributed (e.g., a “collection of node-to-node relations with no backbone or center”) (44). It remains to be seen whether terrorist networks will become completely distributed as they continue to transform.

kinship, and discipleship — that fuels the bottom-up formation of these expansive collectives. As he puts it, “Revivalist social movements like the global Salafi jihad are vigorous social enterprises” (119).²²

Sageman’s description of terrorist organizations as “social enterprises” requires closer examination. While he focuses on the “social” component of networks, this phrase cannot help but bring to mind those financial “enterprises” that contributed to the popularization of the network form: multinational corporations. While dot-com boom era techno-utopian visions of a complete shift from state to corporate governance did not come to fruition, the modern legal entity of the corporation has undoubtedly developed into an integral innovator of socio-political networks. Indeed, corporate networks are not completely separate from their military counterparts. With the U.S. hiring non-governmental military contractors and companies such as Blackwater USA to fill in standard military gaps, government actors and private organizations frequently blur across international and inter-institutional networks.

As the old bureaucratic mode of government organization takes increasingly more cues from the new and more efficient structure of corporate network enterprises, so terrorist groups seem to adapt to late capitalism’s most successful

²² Despite extensive insights into the nature of recruitment in the Salafi jihad, Sageman admits that, ultimately, “Recruitment is still a mystery” (171).

model. According to Sageman, the only truly centralized aspects of terrorist networks are their funding mechanisms. Indeed, funding and organization (rather than militant destruction) turn out to be the most time-consuming tasks undertaken by these networks. Especially in the early days of the Salafi jihad, the al Qaeda organization was almost exclusively in charge of “raising money through bin Laden’s enterprises in the Sudan, setting up logistic support cells in Nairobi for potential operations in East Africa, and casing potential targets” (Sageman 42). While the process of raising capital remains centralized, operations enabled by these funds have become increasingly more distributed, in terrorist as well as multinational financial networks.

The parallels between terrorist organizations and multinational corporations are not coincidental nor are they suggestive of a merely superficial irony.²³ The history of the contemporary Salafi movement can easily be told as a narrative of synergistic fusions between terrorist organizations, such as the significant union between al Qaeda and the Egyptian Islamic Jihad (51). As Sageman’s narrative about the development of the Salafi jihad shows, the interlinking of terrorist groups

²³ For more on this connection, see: Slavoj Žižek’s *Welcome to the Desert of the Real!*. In this collection of essays about the events of 9/11, Žižek explicitly raises the question about the connection between corporate and terrorist networks. Employing Deleuze and Guattari’s philosophical language, he inquires, “Are not ‘international terrorist organizations’ the obscene double of the big multinational corporations — the ultimate rhizomatic machine, omnipresent, albeit with no clear territorial base?” (38).

becomes eerily parallel to the assimilative model utilized by contemporary corporate networks. The language of mergers and acquisitions is not alien to the transformation of terrorist organizations. Take for instance Manuel Castells's description of the post-Fordist network era's shift toward a post-industrial oscillation between cooperation and competition, which reveals a number of striking structural parallels between terrorism and contemporary capitalism:

The structure of high-technology industries in the world is an increasingly complex web of alliances, agreements, and joint ventures in which most large corporations are interlinked. Such linkages do not preclude stepped-up competition. Rather, strategic alliances are decisive instruments in this competition, with today's partners becoming tomorrow's foes, while collaboration in a given market is in sharp contrast to the ferocious struggle for market share in another region of the world (163).

If we consider the networked restructuring of terrorism as the warped mirror image of multinational capitalism then Castells's discourse of "today's partners becoming tomorrow's foes" comes to resonate with the U.S. training of terrorists that took place during that same period. Especially in the aftermath of the terrorist attacks of September 11, 2001, this convergence of American military interests with the rise of global terrorism has been frequently mentioned, if rarely grappled with, as an irresolvable historical irony. As early as the 1950s, in the midst of Cold War espionage operations, the CIA even coined a neologism that captures the process by which American-supported guerillas suddenly turned against the U.S.: "blowback."

The term “blowback” refers broadly to the unintended consequence of secret governmental operations (Chalmers). In recent analyses of the global Salafi jihad, many commentators have characterized the rise of anti-American terrorism as a quintessential example of blowback. Certainly, this concept, however crude, complicates the stability of the classical realist distinction between friend and enemy in the modern era of terrorism. One text that is particularly critical of the phenomenon of blowback is historian Mahmood Mamdani’s incredible history of terrorism: *Good Muslim, Bad Muslim*. Mamdani argues that, far from a sudden emergence that came unexpectedly to replace the dominant Soviet threat, contemporary terrorism was engineered to win the Cold War. Instead of calling the phenomenon “terrorism” or even “counterinsurgency,” the Pentagon originally dubbed this non-sovereign opposition to Soviet-supported regimes “low intensity conflict.” By translating terrorism into the realm of limited war making, the CIA enabled, without directly signaling, a strategic connection between Third World “hot” insurgencies and the allegedly “cold” standoff between the United States and the Soviet Union (Mamdani 99).

According to Mamdani, during the late Cold War, worldwide proxy wars proved to be more than peripheral military phenomena. In fact, they made up perhaps the central component of the U.S. struggle for worldwide unipolar military

hegemony. The strategic rationale behind covertly supporting global insurgencies instead of declaring outright wars carried numerous perceptual advantages. In framing guerilla fighters and terrorists as the causal agents of “low intensity conflicts,” the U.S. could wage wars without facing the public resistance that would accompany official declarations. Furthermore, the CIA’s production of terrorist units — a process that included arms dealing, funding, privatizing information about concrete terror tactics, forming private militias, and even supporting the publishing of terror textbooks aimed at children in places such as Afghanistan and Pakistan — gave the U.S. greater control over its strategic objectives (Mamdani 137). Foreign militias would serve U.S. regional interests while averting an overt world war between the superpowers. Mamdani narrates the CIA’s support of terrorism as a slow yet steady process that developed during the late Cold War:

As they looked for ways to bypass legislative restrictions on the freedom of executive action, these ideologues embraced proxy wars enthusiastically and terrorism gradually. CIA chief William J. Casey eventually took the lead in orchestrating support for terrorist and prototerrorist movements around the world — from Renamo in Mozambique to Unita in Angola, and from contras in Nicaragua to the mujahideen in Afghanistan — through third and fourth parties (87).

Terrorism informed American global policy from Latin America to the Middle East to Africa to Southeast Asia. With the Nicaraguan conflict, the U.S. proxy war became “a CIA production from scripting to editing” (101). In Nicaragua, “the Reagan

administration learned how to combine covert and overt methods of work into a single coherent strategy, thereby joining terrorism to electoral politics, so as to translate the pursuit of terror into a political victory" (116).

Rather than serving as a reductive ethical accusation of American foreign policy, Mamdani's argument is a rich structural indictment of a flawed global system. In the end, he does not insist that the U.S. maliciously trained terrorists. Instead, in an effort to win the Cold War "by all means necessary," the U.S. privileged short-term objectives over long-term politics (13). As with the climate of corporate networks — Castells's notion of "today's partners becoming tomorrow's foes" — the politics of the late Cold War produced worldwide terrorist networks that, after the fall of the Soviet Union, shifted from cooperative partners to vicious foes.

While Mamdani's history of the late Cold War is functionally an extended critique of blowback, Sageman dismisses the term as inapplicable to the case of modern terrorism. He vehemently objects to the notion that the U.S. was causally complicit with the rise of this violent global phenomenon. For Sageman, it is precisely the figure of the terrorist network — what he understands as "a new type of terrorism" — that necessitates a separation between the CIA's funding and training of terrorists and the subsequent rise of the global Salafi jihad. For him, the

local set of proto-terrorist movements during the Afghanistan war in 1988 is completely distinct from the global network that developed by 1998 with the formation of the World Islamic front and the bombings of U.S. embassies in Nairobi and Dar es Salaam. Given the different paradigms operating at either end of this brief period, Sageman contends that we cannot take the blowback thesis seriously. He offers a set of distinctions between these two historical moments, explaining that the U.S. trained insurgents in lesser “guerilla” tactics (“the use of assault rifles, land mines, and anti-aircraft weapons”) rather than explicit “terror” tactics (“explosives, casing a target, and analysis of its vulnerability”). Indeed, Sageman concludes that the jihadists in the 1980s (those individuals who were trained by the CIA) “were not the same people or had a different mentality” from that of the contemporary jihadists who emerged just a decade later (59).

While Sageman’s argument is seductive in its use of historical and categorical distinctions, it takes too discontinuous a view of contemporary history. In fact, the very structure of his claim mirrors the underlying strategic logic that gave rise to terrorism and has allowed the threat to flourish in the early years of the twenty-first century. In its limited ability to link only direct or short-term consequences back to preceding causes, Sageman’s argument is ultimately symptomatic of the same ahistoricity that led the CIA to employ techniques of terror for instrumental gains,

while ignoring long-term effects. In this way, despite its nuanced understanding of certain sociological and organizational features of terrorist networks, *Understanding Terror Networks* fundamentally misunderstands the nature of links in an era of terrorist networks.

Even as I appreciate many of Sageman's observations and share many of his beliefs about the contemporary network era, I draw very different conclusions from those foundations. The recent proliferation of inimical networks does not suggest an absolute difference between early guerilla groups and terrorist networks. On the contrary, the very fact that this emergence was so unexpected to military strategists reveals a deep-seated fantasy of control that accompanied the construction of pro-U.S. militias during the Cold War. It was American hegemonic shortsightedness regarding the volatility of terrorist networks that allowed these structures to take on a life of their own. In seeking to win the Cold War "by all means necessary," the U.S. tragically misjudged the inherent transformability of networks. As Sageman himself declares in a different section of his book, without acknowledging how this observation affects his prior dismissal of the blowback thesis, "Terrorist networks are not static; they evolve over time" (139).

It is the very historical movement into a network era — the paradigmatic shift that grounds Sageman's study of the contemporary enemy — that problematizes his

denial of the terrorist blowback thesis. This move suggests that even as networks are primarily discussed in spatial terms, they also suggest a different view of temporality and history. As open-ended structures that rely on flexibility, extensibility, and expansion, networks come to transform the language of change itself. Namely, in network science, change is understood as “emergence”: the introduction of newness that arises from collective interactions whose effects exceed the mere combination of that collective’s individual causes.²⁴ Transformation comes to be understood not as a linear process of cause and effect, but as the product of complex interactions between interlinked actors in open systems. Applying this abstract network concept to the history of terrorist networks, it becomes impossible to think of Cold War operations as unrelated to present-day enemy organizations, which are comprised of a host of former U.S. allies. Moreover, despite the appealing symmetry of the term “blowback,” the process of causal chronology that this word implies does not capture the emergent change that is characteristic of network

²⁴ The concept of “emergence,” which has entered discussions in the social sciences and humanities, originated in chaos science in the 1980s. In *My Mother Was a Computer*, N. Katherine Hayles defines “emergence” as follows: “The term refers to properties that do not inhere in the individual components of a system; rather, these properties come about from interactions between components” (25). For an extended popular treatment of “emergence,” see: Steven Johnson’s *Emergence: The Connected Lives of Ants, Brains, Cities, and Software*.

temporality. The rise of terrorist networks was not linear. It burgeoned through a different historical process of network emergence.²⁵

Rather than being unrelated to U.S. policy or, inversely, a direct consequence of it, terrorist networks are indissociably interconnected with the recent transformations in sovereign power. Indeed, since their emergence, terrorist networks have operated as symptoms of the global violence supported by late capitalism.²⁶ Structurally, terrorism and state terror have always participated in a

²⁵ My insistence on thinking the terror network in temporal and historical terms stems from the spatial bias of contemporary discussions about networks. In an indictment of “the ‘diachronic blindness’ of graph theory,” Galloway and Thacker already argue that the prevailing ahistorical view of networks “works against an understanding of networks as sets of relations existing in time” (44). Just as network science privileges space to time so a great deal of poststructuralist theory that grapples with the network form operates in primarily spatial terms. In particular, the network configuration is frequently opposed as an alternative to the center/periphery model that has served as the standard in critical discourses such as postcolonial studies. Arguably, even Deleuze and Guattari who are so committed to a theory of dynamic *becoming* instead of static *being* are, at times, overly abstract and inadequately historical in their vision of the interconnected anti-teleological networks they call “rhizomes” (9).

In theorizing networks, we cannot evacuate these structures of history. In thinking about emergence as an introduction of newness into the world, it is important not to forgo diachronic connectivity. To describe this interplay between continuity and discontinuity, it is useful to turn to Foucault’s methodology. Mounting a critique of traditional or, in Friedrich Nietzsche’s terminology, “monumental history,” Foucault develops a historiographic method he calls “archeology” and, later, “genealogy.” Foucault’s genealogies are not authoritative historical records: they are amalgamations of stories, archival texts, and memories that communicate the strategies of power and the tactics of oppositional struggle. Even as they are organized around historical ruptures, however, these genealogical narratives also create strategic continuities that reveal the rhythms of power that ground monumental historical events. A network enables a similar historiographic approach to the one that informs Foucault’s genealogies. While an informatics network, for example, is stable in terms of the programmed protocols that facilitate its operation, it is also inherently emergent insofar as it depends on constantly shifting links and nodes. Preserving such historical tensions between stability and volatility; centralization and decentralization; and power and counterpower is integral to understanding networks.

²⁶ For a philosophical version of this argument, see: Jacques Derrida’s piece in *Philosophy in a Time of Terror*. In this work, Derrida suggests that during and after the Cold War, U.S. foreign policy has operated as the biological process known as an “autoimmunitary process”: a deficiency that he defines as “that strange behavior where a living being, in *quasi-suicidal* fashion, ‘itself’ works to destroy its own protection, to

violent dance of force and counterforce. For this reason, while Sageman is right that U.S. support of al Qaeda and other terrorist groups may have been indirect, that point represents an insufficient defense of American Cold War policies. After all, network historical effects are *always* indirect, circuitous, and unpredictable.²⁷

Networks are never entirely under our control. In a network era, it is precisely the unforeseeable consequences of global actions for which we must take responsibility.

1.4 The Terror Network

It is telling that despite its focus on “terrorist networks,” the title of Sageman’s text indicates an “understanding” of “terror networks” — a discursive collapse that is also evident in Sterling’s *The Terror Network*. Instead of simply dismissing this linguistic inexactitude, it is possible to redirect it toward more generative ends. With this goal in mind, I turn my attention from those empirical

immunize itself *against* its ‘own’ immunity” (94). Drawing an analogy between this physiological state and the terrorism that became visible in the United States after 9/11, Derrida argues, “Immigrated, trained, prepared for their act in the United States by the United States, these *hijackers* incorporate, so to speak, two suicides in one: their own (and one will remain forever defenseless in the face of a suicidal, autoimmunitary aggression — and that is what terrorizes most) but also the suicide of those who welcomed, armed, and trained them” (95) In this way, the emergence of terrorist networks is less an invasive assault from an outside force than an implosive self-destruction of a system that includes both terrorist and state actors. As Slavoj Žižek makes this when he writes, “Jihad and McWorld are the two sides of the same coin, Jihad is already McJihad” (*Welcome to the Desert of the Real* 146).

²⁷ Employing a biological analogy, Galloway and Thacker explain, “the West created terrorism in the same way that the overprescription of antibiotics creates new bacterial resistances” (26). Having trained terrorists as instruments of Cold War proxy wars, the U.S. simply lost control of the militant assemblages it had created. After serving their initial purpose, terrorists, like drug-resistant bacteria, multiplied and organized into a more formidable opposition.

structures commonly labeled “terrorist networks” to a sociopolitical structure that I call, through a deliberate misappropriation of Sterling and Sageman’s titles, the “terror network.” While terrorist networks represent the primary media frame of contemporary American foreign policy, the terror network, in my usage, is a more foundational concept. I use the term to describe the overarching system of political, economic, social, and cultural terror that emerged, for the first time, during the Cold War. The terror network is not a concrete entity like the terrorist network. It is a more interconnected structure made up of complex causalities, correlations, and links. It is the system of violence that made terrorism possible in the first place. Through my analysis, I insist that if my concept of the terror network is a theoretical fiction, it is nonetheless an analytically richer fiction than the anachronistic figure of the terrorist network.

Stephen Gaghan’s 2005 film *Syriana* compellingly deploys network aesthetics to represent the terror network: the structure that links oppositional terrorism and state terror. Drawing from CIA operative Robert Baer’s memoir *See No Evil* (2003), the film interweaves several stories set in global locations including Houston and Washington D.C.; Spain and Switzerland; and Beirut and Tehran. The film’s ambitiously tight interconnectivity oscillates between neurotic paranoia and clear-

eyed insight, dramatizing its network slogan: “Everything is connected.”²⁸ As the narrative unfolds, the film’s components come crashing together. The plot proves incredibly complex, but the major event that ties the numerous stories together is the merger between Connex (a large oil conglomerate) and Killen (a smaller oil company that has recently won rights to promising oilfields in Kazakhstan): an international event that affects 37,000 workers in 160 countries. The focus on contemporary institutions, including the global stretch of Connex-Killen itself, contributes to the affect of total connectivity that the film’s tagline announces. Tracing the illegal rise of this corporation to financial power, *Syriana* follows an ensemble cast of characters. Two of these individuals are particularly central to my reading of the film: a veteran CIA field agent named Bob Barnes who initiates the assassination of Prince Nasir (the possible future emir of an unnamed Gulf state who threatens U.S. oil interests) and a young Pakistani migrant worker named Wasim who, upon being laid off from a Connex refinery, decides to train as a suicide bomber.

²⁸ Of course, even if *everything* is connected, a feature film can only represent some of those connections. As with all films, *Syriana* makes countless representational choices. Despite overall critical acclaim, one of the film’s overarching decisions — the privileging of cerebral plot development over character emotions — drew some disapproval. According to some critics, in the service of revealing a broader network, the film reduces human characters to the status of causal agents. More generously, critic Rahul Hamid contends that, instead of psychological motivations, “actions are shown to be rooted in economic and political realities surrounding the global pursuit of oil.” Indeed, in its selection of particular connections, *Syriana* does not elide the human or psychological dimensions of its elements. By focusing on the links between production and consumption, politics and economics, the West and the Middle East, as well as sovereign power and terrorism, the film charts an implicit psychology and political logic that emerges with the contemporary network era.

Along with its networked plot, *Syriana* uses various cinematic techniques to provide the viewer with a glimpse of connectivity within the seemingly disparate elements of its global network. From the opening scenes, the film disorients the viewer with quick cuts across its sizeable cast and diversity of geographical locations. The degree of disorientation disrupts the political thriller genre to which *Syriana* ultimately belongs. Given the difficulty of following the plot, the film suspends the usual suspense and forces the viewer, instead, into a more strained and active mode of meaning making. As the story unfolds, different plots begin to merge and thematic clusters emerge. A key formal technique by which narrative unity is achieved is the frequency of audio bridges that stretch across visuals, from one sequence of narrative space-time to the next, reinforcing larger connections.

One relatively minor scene demonstrates how the film uses formal innovations to establish links between otherwise discrete characters. When CIA agent Bob Barnes (George Clooney) has lunch with his son at a Mexican restaurant in Princeton, New Jersey, the conversation between the two characters begins while a steady camera follows a seemingly unrelated visual: the transportation of what turns out to be their recently prepared meal from a restaurant's kitchen to their table. Through this moment of audio-visual disjunction, the shot of a Mexican waitress — a background character who does not affect the plot but nonetheless represents a

mobile link between global production and Western consumption — is juxtaposed with the audio of a private conversation. Although the visual and audio eventually become synchronized when the food reaches the table, the initial dialogue between Barnes and his son obfuscates and reframes the marginalized woman's story by coming to narrate, motivate, and ultimately engulf its visual counterpart. Even in this seemingly minor scene, the film suggests that relations among quotidian and world-historical events can be extremely significant.

Syriana explores different facets of global networks, but perhaps the most powerful plot thread concerns the development of contemporary political terror. Through a series of formal concatenations and plot complications, the film delineates between terrorist networks and what I have called the terror network. This distinction becomes evident in the juxtaposition of two crucial scenes that take place at the climax of the film during which several of the film's major stories become explicitly entangled with one another. In the first sequence, the CIA comes to assassinate Prince Nasir whose defiance of U.S. economic preferences have transformed him, officially, into a "terrorist." As the scene begins, agent Bob Barnes, who has grown increasingly disillusioned with CIA activities, stalls Nasir's caravan and rushes to warn him of the assassination attempt. Despite his tenacity, he cannot prevent the coming destruction. Using a precision-guided missile fired from a

distant Predator Unmanned Aerial Vehicle, a group of CIA agents succeeds in eliminating Nasir.²⁹ Nevertheless, before Barnes and Nasir are both obliterated in the missile's explosion, they share an instant of understanding. While they have crossed paths once before, meeting in an elevator when Barnes was still operating as an undercover agent involved in orchestrating Nasir's downfall, this encounter is their first real exchange. Postponing the moment of their deaths, shot-reverse-shot editing depicts the men looking meaningfully into each other's eyes. Certainly, this scene is too brief to capture a deep sense of mutual empathy between the characters. Nonetheless, it serves as a brief instant of recognition between Nasir and Barnes that is bursting with dangerous possibility. This meeting represents a moment of remembrance, exchange, and potential friendship. Before the missile hits, Prince Nasir's final words to Barnes confirm this acknowledgment and his memory of meeting Barnes under the agent's false identity: "You're the Canadian."

Cutting short Nasir and Barnes's promising exchange — a facing loaded with democratic potential that is never given the opportunity to become actualized — a remotely located group of agents delivers a thundering missile strike that is initiated

²⁹ The film's representation of a smart missile strike demonstrates that the threat of networks derives not only from the possibility of lost control, but also from the uses to which existing networks are put. As De Landa argues throughout *War in the Age of Intelligent Machines*, the threat of intelligent machines has less to do with sentient machines turning on human beings than with the "war machine" that organizes human collectivities in the interest of destruction.

by the CIA director's command to "take the target out." Visually, the scene cuts between the more intimate ground view and the CIA's satellite-derived God's-eye-view, which instrumentalizes the picturesque desert terrain below. This difference between air and ground views is perhaps more powerfully registered through the film's audio. Even as the first half of the deafening blast is heard on the ground, the instant cut to the CIA control room reveals an absolute silence in which the kill is confirmed only via abstract satellite visualization. Through a single integrated view — a militarized global picture — all of the world's space becomes both visible and subject to remote destruction. An event that is deafening and horrific on the ground is experienced as a silent calculation from a distance. With its weaponized network and its optical interface, the military apparatus reveals its status as both surveillant "big brother" and, in Thomas Barnett's early twenty-first century realpolitik terms, "system administrator" (298). In converting the entire Earth into an observable terrain, the military combines aerial reconnaissance with the fantasy of network totality. The CIA combines a pretension to scopophilic omniscience with military omnipotence, treating the entire planet as a comprehensible and conquerable site.

In an incisive reading of this scene from *Syriana*, Caren Kaplan criticizes the film for supporting the techno-utopian view that an American missile is capable of absolute precision: that is, of hitting anyone, anywhere in the world. As Kaplan

explains, one problem with the representation of the perfectly accurate tactical missile strike that hits Nasir is that it is “too easy to pose the orbital view as more lethal and less humane than the grounded or located scale of the naked gaze” (“Everything is Connected”). In fact, as many Hollywood films demonstrate, Marine snipers and hand-to-hand combat can be as deadly as precision-guided munitions. In this sense, *Syriana* covers up the fact that the ground can be just as treacherous as the air. As Paul Saint-Amour has argued, in a similar critique of the techno-determinist belief in missile precision, throughout history, widespread colonial policing practices and acts of genocide have also taken place without reliance on optical airborne technologies. Even today, high tech precision arms are reserved primarily for covert operations and conflicts that target inimical nation-states in concrete wars. But, as *Syriana* reminds us, not all contemporary conflicts involve nation-states.

While I find Kaplan’s critique of the fetishization of the orbital view and precision targeting to be incredibly insightful, *Syriana* comes, in my own reading, to exceed the military’s reliance on global vision and return to the ground view.³⁰ Indeed, when read in conjunction with the scene that comes after the aftermath of the CIA-orchestrated assassination of Prince Nasir, the film’s explosive climax

³⁰ For a more extensive version of this critique of precision targeting see: Caren Kaplan’s article “Precision Targets: GPS and the Militarization of U.S. Consumer Identity.”

complicates the invincible vision of American global hegemony. In the sequence that follows, the film cuts to a small fishing boat occupied by Wasim (Mazhar Munir), the young Pakistani migrant worker turned terrorist, and a friend. Steering the boat toward a Connex-Killen oil tanker, the two boys execute a suicide attack using a shaped-charge explosive that was stolen from the United States — specifically from CIA agent Bob Barnes — in the opening scene of the film. As soon as the boat reaches the oil tanker, the screen immediately fades to white, offering neither a visual or audio representation of the impact. Following this devastating climax, the film’s final words come, in Arabic, from an ideological video of Wasim that was shot before his death. His detailed funeral instructions begin with the following request, “During the funeral I want everyone to be quiet and I should be lying on my side.” This posthumous call for silence, which the film respects at a formal level through a soundless representation of the boy’s act of suicide bombing, serves as a haunting counterpart to the hush in the CIA control room following the assassination of Prince Nasir. While these forms of silence are radically different, spanning varied types of distance, they are nonetheless linked through the film’s network aesthetics. The film maintains a formal insistence on interconnection that effectively preserves rather than resolves the paradoxes of the contemporary political system.³¹

³¹ This attention to elements that are simultaneously discrete and continuous can be traced to modernist

Instead of serving merely as another depiction of perfect precision bombing — an extension of the technological fantasy of conflicts waged in the vein of the 1991 Gulf War — *Syriana*'s juxtaposition of absolute sovereign accuracy with a non-sovereign attack produces a moment of critical irony. As this final counterattack suggests, the American military machine, despite its presumed dominance of global space and the electromagnetic spectrum, remains more vulnerable than ever to guerilla attacks and terrorist disruptions by actors such as Wasim. Born into an environment terrorized by capitalist injustice, forced into poverty through the loss of his job, and unaccounted for by a U.S. power spread thin by its interest in broader world-historical stakes, Wasim slips under the radar and gradually adopts the role of terrorist. Like the refugee and the concentration camp prisoner, the suicide bomber becomes a figure abandoned by the state.³² Nevertheless, it is as an effect of the very state-induced hopelessness of his existence that Wasim becomes capable of committing his destructive suicidal act against the global conglomerate of Connex-Killen. In this second half of the climax, we see that while military optics may

formal practices, which sought to apprehend fleeting unities through spatial aesthetic practices. I discuss the continuity between the modernist sublime and the network sublime in the introduction to this dissertation.

³² This figure belongs to the mass of “displaced persons” and “stateless” asylum seekers, abandoned by the state, that become central to Hannah Arendt’s reading of the political situation prior to and following World War II. For more, see: *The Origins of Totalitarianism* (279).

presume to convert everything into a target, the system that supports U.S. hegemony produces its own blind spots.³³

The plotline that follows Wasim throughout *Syriana* registers many of the mechanisms that give rise to terrorist networks, but the film, as a whole, makes visible the terror network: a larger internecine system of violence that operates through an interplay among economic, legal, cultural, military, and political actors. It is not merely important, as Sterling and Sageman suggest, that terrorists organize in networks. Rather there is a constantly changing network of capital, armaments, oil, and strategic interests that makes possible the historic conditions that produced and continue to support networked antagonism. Terrorist networks are not comprehensible or even viable without the military-industrial-media-entertainment complex that formed during the Cold War years. As *Syriana* so brilliantly demonstrates, sovereign force and terrorist counterforce are not Manichean opposites. They are codependent terms that participate in the same vicious cycle; the same inertial trajectory; and the same network of terror. As the name of the oil

³³ As Paul Saint-Amour puts this point in a reading of Thomas Pynchon's encyclopedic novel of World War II military technologies, *Gravity's Rainbow* (1973), "however much we might *destroy* everything, we can never, never *see* everything." Saint-Amour makes this claim in the course of a discussion about the Herero genocide depicted in Pynchon's novel: *Gravity's Rainbow* (1973). As he puts it, "But if the victims of the colonial genocides are in some sense targets without optics, targets who are not *under* surveillance but rather *beneath* it, targets whom the state does not bother to see before eradicating, then an exploitable gap opens in the field of weaponized visibility." For an extended critique of the overlap between military destruction and optics, see: Rey Chow's *The Age of the World Target: Self-Referentiality in War, Theory, and Comparative Work* (87).

conglomerate “Connex-Killen” suggests — linking together such signifiers as “Conoco,” “Exxon,” “clean,” and the metaphorical merger of “connection” and “killing” — networks and terror become entangled with one other. In this instance, global oil networks use a vocabulary of interconnection when their underlying capitalist logic comes instead to disconnect people from one another through violent rupture.

If the climax of *Syriana* falls short of a well-rounded politics it is perhaps in its failure to imagine a viable and potentially nonviolent alternative to the terror network. Although the film begins to dwell in the complexity of a network of place, race, politics, economics, and ethics, the film’s ending flirts with a conservative return to the family and local community. After an estrangement from his wife and son as well as the death of his client Prince Nasir, energy analyst Bryan Woodman (Matt Damon) reunites with his family. Similarly, the attorney Bennett Holiday (Jeffrey Wright) returns from work, discovers his estranged father slumped over on the front stoop, and leads him into his home. Even the recently deceased Bob Barnes is shown, one last time, in two pleasant photographs: one with a friend and one with a group of coworkers. Instead of the deadly network tracked throughout the film, the viewer is left with a call to return to a simpler mode of organization based on kinship and small community structures. Of course, there is also a haunting formal

co-presence inherent in this final sequence that complicates the visuals. In this concluding montage, scenes of functioning families are juxtaposed with the ghostly audio from Wasim's final video in which he announces, "The next world is the true life."

This otherworldly voice suggests that instead of serving as a safe alternative to the terror network, Western kinship and community structures remain linked, in a tense and ironic bond, to the Pakistani boy's appeal to a drastically different logic of martyrdom and sacrifice. The relative comfort of momentary disengagement from geopolitical affairs allotted to Woodman and Holiday (though not Barnes who is himself involuntarily sacrificed by the CIA) coexists in an irresolvable tension with the poverty and death of which Wasim's disembodied audio specter serves as a reminder. Indeed, since Wasim's sacrifice is spurred by a deep concern for his own family's financial survival and a disciple's fidelity to the Muslim cleric who trains him for the attack, this final montage can be read as a reminder that, in an unjust world, not all families are permitted equally happy endings.

Ultimately, *Syriana* does not posit an absolute conjunction between global terror and the network structure as such. Through its own network aesthetics, the film suggests that understanding interconnection is a methodological prerequisite for reflecting on, dwelling in, and perhaps moving beyond the numerous paradoxes

that characterize the terror network. While the global network is too volatile and complex to understand in its overwhelming sublimity, approaching this impossible undertaking is a crucial step that individual actors must take to understand their own place in a system whose totality exceeds them. Inevitably, understanding the systemic roots of terrorism is a process rife with contradiction. By representing characters with drastically different understandings of their own responsibility vis-à-vis global politics, *Syriana* grapples with precisely those paradoxes inherent in the viewer's feelings of everything from anger to empathy, guilt to impotence. Through its network aesthetics, *Syriana* raises difficult questions and deep-seated tensions that inhere in contemporary global politics. It does not feed the desire for the type of immediate answers and band-aid solutions that gave rise to the terror network in the first place. By refusing to resolve many of the oppositions it represents, the film highlights the productive nature of paradox that is made possible through network thinking. As Ladelle McWhorter explains, explicating a theory originally posited by Heidegger, "paradox is not only a trap; it is also a scattering point and a passageway. Paradox invites examination of its own (hence the patterns of thinking within which it occurs) and thereby breaks a way of thinking open revealing the configurations of power that propel it and hold it on track" (2). By emphasizing the unjust contradictions of history, geography, and global politics, *Syriana's* network

aesthetics gesture toward an alternative mode of thinking that excavates the present. At the very least, through this network approach, both aesthetic and epistemological, a challenge to the totalizing violence of the terror network makes possible the imagination of different futures.

1.5 Beyond Routine Imagination

The United States military continues to adapt its infrastructures to respond to terrorists, non-sovereign threats, and network enemies. Since the late twentieth century, new defensive networks have been developed to take on network enemies. The Pentagon's ongoing construction of the military Internet known as the Global Information Grid (GIG) — imagined as early as 1999 and mandated in 2002 — has symbolized the paradigm shift that continues to augment information warfare with a material framework. As the U.S. Department of Defense describes the project, GIG will be “a net-centric system operating in a global context to provide processing, storage, management, and transport of information to support all Department of Defense (DoD), national security, and related Intelligence Community missions and functions — strategic, operational, tactical, and business — in war, in crisis, and in peace.” By standard melioristic standards, this massive inter-industry project is an ambitious and innovative improvement on status quo military organization. At the same time, this networked adaptation to a changing global landscape raises concerns

about whether the transition to network warfare, however innovative it might be, is sufficiently *imaginative*. It is not at all clear whether a global military network can help us envision an emergent response, approach, and language to challenge the contemporary terror network.

Imagination — particularly the government’s “failure of imagination” — was discussed at great length after the terrorist attacks of September 11, 2001. Indeed, this word appears prominently in the central prescription of the *9/11 Commission Report*, which announces, without a shred of irony, “It is crucial to find a way of routinizing, even bureaucratizing, the exercise of imagination” (344).³⁴ For the National Commission on Terrorist Attacks and numerous pundits, “imagination” becomes the product of careful discipline: a regulated means to an end of economic growth and military success. Such arguments for the importance of imagination to counter-terrorist efforts, which were common in the years following September 11, reproduce many of the conceptual problems that stymied the American imagination in the first place. In effect, many of these calls depend on the same kind of thinking

³⁴ Also, see: Steven Dahlberg’s “Creativity by Choice, Not by Chance” In this advocacy piece praising the House of Representatives Committee on Intelligence hearings for bringing imagination into the national spotlight, Dahlberg argues, “Creative breakthroughs can and do happen by chance. But if this kind of thinking is taught, creative outcomes can happen by choice — not only in fighting terrorism, but for developing a country that deliberately chooses to think creatively, personally, professionally and globally.” In an effort to historicize creativity and imagination, Dahlberg backs his position up with a brief genealogy of post-WWII research in industry and educational psychology that articulated “creativity as something that can be nurtured and developed for producing more innovative outcomes” (1).

that made it so difficult to believe that a handful of privately trained individuals could hijack commercial airplanes and wage a major terrorist attack on U.S. soil. One of the ironies of the *9/11 Commission Report's* advocacy of “routinizing, even bureaucratizing, the exercise of imagination” is that so much of the future vision discussed in the document is focused on already-thinkable plane-based attacks instead of truly unimaginable modes of terrorist violence. In coming years, if the military wishes to keep pace with “emerging threats,” routine imagination must cede to a more speculative and divergent mode of thinking.³⁵ To transform imagination into a bureaucratic exercise or an area of expertise is itself unrealistic given that such strategic forecasts are likely to rely on residual Cold War analytic approaches. As Paul Virilio explains, “*We are always one war behind*, and just as there are no experts in atomic warfare (a war in which adversaries would have possessed a bomb and used it), there are not yet any experts in global terrorist warfare” (*Ground Zero* 35).

Employed to predict terrorist attacks and justify exceptional state responses, imagination becomes instrumentalized — used to repeat the status quo rather than to produce a better future. As Heidegger reminds us, imagination can never belong to the realm of calculation. Instead, genuine imagination — a mode of open-minded

³⁵ The phrase “emerging threats” recurs constantly in the DoD’s “Information Operations Roadmap,” which I discuss in the first part of this chapter.

vision and understanding — involves the more modest act of bringing that which is incalculable into the scope of visibility (“Age of the World Picture”).³⁶ This mode of imagination, nurtured through a process of thoughtful questioning, must inform politics as much as it does philosophy or literary analysis. For this reason, my critique of the contemporary failure to imagine the terror network in its complexity is not merely a formal intervention or a theoretical corrective. This assessment has very real implications.

In constructing terrorist networks — not just the literal organizations that wish to exact revenge against Western powers but those culturally constructed amorphous enemy formations that supposedly threaten us in all places and at all times — America sets the terms of network warfare. Through the corresponding demonization of terrorist networks, the U.S. makes winning the defined struggle, the War on Terror, impossible. Our current way of thinking enables a perpetual warfare against an enemy construct that is too formless and fluid to differentiate, let alone defeat. And this end is far from accidental. As Siva Vaidhyanathan notes, “The rhetorical value of alleging a ‘network’ at the heart of a threat to security or identity

³⁶ Contrary to the military’s unidirectional global vision, the mode of imaginative visibility that Heidegger has in mind operates as an alternating flow: a fluid give and take between self and world. As Heidegger writes, “Man will know, i.e., carefully safeguard into its truth, that which is incalculable, only in creative questioning and shaping out of the power of genuine reflection. Reflection transports the man of the future into that ‘between’ in which he belongs to Being and yet remains a stranger amid that which is” (136).

is clear: It's impossible to tell when a war against a network is over because it can't be seen. A network can be dispersed, distributed, encrypted, and ubiquitous" (171). Within the logic of the War on Terror, the emergence of unknown terrorist networks reinforces a state of emergency and its violent policy of preemption.

Even if it were possible, it is not clear that winning the War on Terror, a conflict that substitutes for real political imagination, would create a better world. To date, this war's targeting of an elusively hydra-headed enemy has proven an economic and political failure. Even decisive military victories in this struggle have been temporary or misplaced, revealing that America's global war campaign is predicated on a faulty discursive framing of a network enemy that cannot be destroyed. As Slavoj Žižek inquires in an analysis of the War in Afghanistan that started on October 7, 2001, "if the greatest power in the world bombards one of the poorest countries, which peasants barely survive on barren hills, is this not the ultimate case of impotent acting out?" (*Welcome to the Desert of the Real* 35).³⁷ If we are

³⁷ Jean Baudrillard makes a similar point in his response to the events of September 11, 2001. As he puts it, "There is no remedy for this extreme situation and war is certainly not a solution, since it merely offers a rehash of the past, with the same deluge of military forces, bogus information, senseless bombardment, emotive and deceitful language, technological deployment and brainwashing. Like the Gulf War: a non-event, an event that does not really take place.... And this indeed is its *raison d'être*: to substitute for a real and formidable, unique and unforeseeable event, a repetitive, rehashed pseudo-event. The terrorist attack corresponded to a precedence of the event over all interpretive models; whereas this mindlessly military, technological war corresponds, conversely, to the model's precedence over the event, and hence to a conflict over phoney stakes, to a situation of 'no contest.' War as a continuation of the absence of politics by other means" (*The Spirit of Terrorism and Other Essays* 34). With this parody of Carl von Clausewitz's famous definition of war as a continuation of politics by other means, Baudrillard argues that war is an inadequate

ever to come to terms with global terrorism, it will not be through violence. A vicious cycle of vengeance will never result in redemption or victory. Waging a war on terrorist networks that are conceived of as external enemies is a losing strategy. Endless violence can only perpetuate terror, which spreads virally, paralyzing the intellect and drowning out complex affects. A state of continual fear wears down imagination and deprives thought of its productive potential. But this condition is not inevitable. As Barabási suggests, “If we ever want to win the war, our only hope is to tackle the underlying social, economic, and political roots that fuel the network’s growth” (224). Complicating the view of terrorist networks as incomprehensibly Evil structures that must be neutralized or eradicated, we begin thinking in network terms.

In his 2009 inaugural address, President Barack Obama announced that “our nation is at war against a far-reaching network of violence and hatred.” Nearly a year later, in response to the attempted Christmas Day bombing of a U.S. bound Northwest Airlines flight, Obama reiterated that earlier phrase and further described the government failure in terms of an inability to “connect the dots” and therefore

response to terrorism. As a reaction to acts that are sacrificial and therefore symbolically charged, war offers only a response at the order of superficial exchange. Violence is answered with violence. And the growth of a terrorist network is answered with the construction of an updated military network.

prevent the known terrorist from boarding the airplane (“Obama comments on Flight 253 security review”). In these pronouncements, Obama treats anti-American organizations and U.S. governmental agencies, respectively, using a network vocabulary. The shortcoming of this network language, which was inherited from earlier administrations, is that it fails to suggest the ways that these organizations, as well as larger systems of terror and capitalism, are interconnected. As I have argued, thinking through the terror network is a crucial step in shifting from a worldview of strategic enmity and network warfare to an examination of the underlying causes, connections, and interactions that have enabled the contemporary era of terrorism and global antagonism. If we continue thinking and acting unimaginatively, as we have, the internecine global network that has arisen, unexpectedly, out of the Cold War balance of terror will destroy “friend” and “enemy” alike. A study of network aesthetics, on the other hand, contributes to the productive task of imagining truly unimaginable alternatives to the system of contemporary capitalism.

Chapter 2: “All reciprocally vulnerable”: American Finance, Capitalist Networks, and the Fiction of Don DeLillo

And how can you tell the difference between orange juice and agent orange if the same massive system connects them at levels outside your comprehension?

— Don DeLillo, *Underworld*

The language of interconnection and interdependence has been integral to the way that economists have described global finance and the international monetary system since the middle of the twentieth century.¹ Economics research has drawn heavily from network science, incorporating spatial interaction models, nonlinear evolutionary ecological models, neural networks, graph theory, and multi-agent techniques (Reggiani and Fabbri, xvii). The interpenetration of economic and network vocabularies that began in the postwar period has affected the greater global development of multinational capitalism.

The contemporary study of economic systems has also influenced worldwide literary production. Given the postwar role of the United States as a geopolitical hegemon and financial giant, American fiction has been particularly keen in

¹ In a sense, all networks are “economic” in nature. Scientists frequently conceive of interactions among network components (e.g., in transportation systems or computer webs) by using the discourse of resource management. As policy analyst Kenneth Button explains, “networks involve interactions implying synergies and potential network economies” (Button in Reggiani and Fabbri 5). The reverse of this formulation is also true: economical interactions are inherently systemic or networked. Fundamentally, economics is the study of production, distribution, and consumption across multi-nodal systems.

registering the increased interconnection of markets. Since the early 1970s, one of the most insightful theorists of both U.S. finance culture and its planetary network has been American writer Don DeLillo. His metaphors and stylistic developments reflect the proliferation of network language through contemporary economic thought. In this chapter, I contend that the discursive, narrative, and aesthetic dimensions of contemporary finance explored in DeLillo's fiction are integral to understanding the material circulation of capital through global networks. Even as economic modeling promises to produce increasingly more accurate descriptive and prescriptive representations of global finance, literature has a unique capacity to explore the human meanings and affects that infuse worldwide economic structures.

DeLillo published his first novel in 1971, at a moment that saw the deterioration of the Bretton Woods System of international monetary management, the rise of financial privatization, the explosion of the "information revolution," and the shift toward deregulation as a dominant American policy.² Even in his first novel, *Americana* (1971), DeLillo began crafting a critique of corporate America. His attack on consumerism and capitalism burgeoned in subsequent novels, such as

² DeLillo began writing at a moment that saw less regulation of exchange rates and the takeover of "free market" ideology. As Barry J. Eichengreen explains, the major event that led to the rise of flexible exchange rates was the collapse of the Bretton Woods System that had controlled capital mobility and stabilized exchange rates since the end of World War II (1-2). This system began to deteriorate in 1971. By 1973, "exchange rates were allowed to float" (134).

Players (1977), which draws powerful parallels between the business of stock brokers and terrorists. By the 1980s, especially in *The Names* (1982), DeLillo extended his focus further outside of the United States, exploring international business, American foreign interests, and the global nature of multinational capitalism. In the 1990s, in his magnum opus *Underworld* (1997), he explored decentralized economic systems and the larger networks in which they participate. Since then, DeLillo has observed the gradual deterioration of American economic hegemony in novels such as *Cosmopolis* (2003) and *Falling Man* (2007).

This chapter analyzes several of the works from DeLillo's expansive oeuvre, which has already spanned four decades. As my chronological study of these texts demonstrates, the concept of the network becomes increasingly more vital to DeLillo's understanding of the stock market, finance culture, and multinational capitalism as he moves deeper into the era of American globalization. These novels explore substantial system crises and networks of capitalism, but it is equally important that they trace these macroeconomic trends through the experiences of individuals — risk analysts, financiers, bankers, and even terrorists who oppose American power. By attending to the psychology of multinational capitalism and the terror it generates, these texts map the relations between individuals and totalities; parts and wholes; nodes and webs. The network aesthetics that make up these

novels connect economic matters to political, technological, cultural, social, and psychological concerns. Consequently, even as this chapter concerns economic networks, it links inevitably to numerous non-economic nodes.

2.1 A “Tentative Alliance”: Capital Terror in *Players* and *The Names*

Capitalist networks are unsustainable without a host of political interventions that legitimate, legalize, and secure monetary flows. American hegemony, in particular, has hinged on the connection between political power and economic growth. The establishment of so-called “free markets” and growth of economic deregulation, in the 1970s, had as much to do with American government policy as with shifts in corporate culture. Since the rise of privatization, DeLillo has been one of the most insightful literary thinkers of the juncture between American free trade and political terror: an intersection analyzed, theoretically, by critics such as David Harvey, Giovanni Arrighi, and Naomi Klein. Two of DeLillo’s novels in particular, *Players* and *The Names*, published in 1977 and 1982 respectively, emerge from the midst of a period obsessed with American financial superpower and international terrorism. Instead of treating terrorism merely as an oppositional response to global capitalism, he emphasizes a link between the two that is not reducible to linear causality. Capitalism, in these novels, is not a system that requires protection from

anomalous acts of terror. It is the very systemic source of political terrorism and contemporary fear.

DeLillo's fifth novel, *Players* (1977), follows Pammy and Lyle Wynant: a successful young couple living in New York City. Pammy works for the Grief Management Council and Lyle works as a successful stockbroker. One day, Lyle sees a man named George Sedbauer shot on the floor of the New York Stock Exchange. Over the course of the novel, he undergoes an ambiguous entanglement with the "suspected terrorist network" responsible for the killing (*Players* 65). Although it gestures toward networks, *Players* renders structures of interconnection primarily by drawing from the earlier language of systems theory. An early description of the Stock Exchange, for example, depends on the complex intermingling of systemic components:

In the electronic clatter it was possible to feel you were part of a breathtakingly intricate quest for order and elucidation, for identity among the constituents of a system. Everyone reconnoitered toward a balance. After the cries of the floor brokers, the quotes, the bids, the cadence and peal of an auction market, there was always a final price, good or bad, a leveling out of the world's creaturely desires (28).

These sentences depict a "system" of "intricate" complexity that nonetheless tends toward a homeostatic "balance." Ecological thought and systems theory, both of which were popular in the 1970s, depended heavily on these concepts, which

gestured proleptically toward network science.³ In this passage, a system becomes a “quest for order and elucidation” amidst “electronic clatter” and the chaos of “the world’s creaturely desires.” While the components of the Stock Exchange are disorderly and overwhelming, Lyle believes that they ultimately produce a comprehensible stability in the form of a quantifiable “final price.”

Lyle gradually discovers that a system is not the mere achievement of order from chaos but a constant oscillation between these two poles. DeLillo dramatizes these abstract extremes more concretely through the interplay between the two systems of terrorism and capitalism. Like many of DeLillo’s novels, *Players* treats terror and capital as inextricably interrelated and interlocking systems. The terrorist network that captures Lyle’s attention is comprised of distributed agents who operate through decentralized cells.⁴ The capital that drives Lyle’s work at the Stock Exchange takes on a similarly systemic dimension. Throughout the novel, monetary exchange comprises a worldwide system, both abstract and distributed, that connects individuals. As the radical Marina Vilar explains to Lyle, it is this scheme that the group of terrorists seeks to disturb:

³ Systems theory, which originated in the biological study of ecosystems, dates back to the 1920s. This approach did not have a widespread effect on economics, however, until the mathematically-oriented field of network theory enabled quantifiable market simulations and predictions.

⁴ Of course, later in the novel, the terrorists seem to devolve toward a state of increased chaos. Lyle has the feeling “They had no visible organization or leadership. They had no apparent plan. They came from nowhere and might be gone tomorrow” (121).

Rafael wanted to disrupt their system, the idea of worldwide money. It's this *system* that we believe is their secret power. It all goes floating across that floor. Currents of invisible life. This is the center of their existence. The electronic system. The waves and charges. The green numbers on the board. This is what my brother calls their way of continuing on through rotting flesh, their closest taste of immortality. Not the bulk of all that money. The system itself, the current (*Players* 107).

In this passage, money is an inconsequential term. Even, in sum, "the bulk of all that money" does not enable global dominance. Instead, the worldwide monetary "system" is the "secret power" that sustains American hegemony. This structural strength, however, is also the very weakness that enables disruption of the social order. Marina later tells Lyle, "To cause serious damage at the Exchange, at this one place of all places in the world, will be a fantastic moment.... Do you believe in the value of that?" Lyle responds, "I do, actually. The system. The secret currents. Make it appear a little less inviolable. It's their greatest strength... and to incapacitate it, even briefly, would be to set loose every kind of demon" (183).

Despite the language of disruption and opposition employed by Marina and the other terrorist characters, *Players* does not reduce the relationship between terrorist and economic systems to one of rivalry. On the contrary, it is a curious *alliance* between terrorists and capitalists that drives the development of the novel. As Lyle learns, George Sedbauer (the man shot by the terrorists) was a stockbroker working in collusion with the radicals to set off a bomb on the floor of the Stock

Exchange. At first, this partnership between opposed parties appears absurd. As J. Kinnear, one of the primary terrorist characters, puts it, “Imagine being so lacking in resources and strategies that you have to base a major operation on this tentative alliance, this weak, weak, weak relationship with someone who works for the very entity that’s the target and who stands to lose everything and gain nothing from the whole affair” (180). Sedbauer does not cooperate with the criminal organization for political reasons or even because of the promise of economic gains. A sense of meaninglessness and boredom motivate this stockbroker — and Lyle Wynant after him — to assist the terrorists. The “tentative alliance” between these parties suggests both the structural precariousness and unlikely linkage between the terrorist and capitalist systems.

The relationship between capitalism and terror in *Players* is ultimately neither one of straightforward opposition nor of conspiratorial alliance between separate constituents of a system. The novel represents terrorism neither as the antagonist of capitalism nor as the dark twin — the mirror image — of Western liberalism. Capitalism does not simply assimilate terror nor does terror disrupt the logic of capitalism. In a more profound sense, antagonism and terror are the very foundation

of capitalism.⁵ As Lyle tells Pammy, “the capitalist system and the power structure and the pattern of repression are themselves a struggle.” He continues, “It’s not an easy matter, being the oppressor. A lot of work involved. Hard dogged unglamorous day-to-day toil. Pounding the pavement. Checking records and files. Making phone call after phone call. Successful oppression depends on this” (34).

Lyle suggests that “struggle” and terror are the defining qualities of “the capitalist system.” After becoming completely entangled with the terrorist network at the end of the novel, Lyle hides out in a motel room and returns to this conclusion: “What’s behind it all?... Inwardness spiraling ever deeper. Rationality, analysis, self-realization. He spends a moment imagining that this vast system of nearly identical rooms, worldwide, has been established so that people will have somewhere to be *afraid* on a regular basis” (210). The “vast system of nearly identical rooms, worldwide” evoked by Lyle’s motel room represents a microcosm of the network of capitalism with all of its internal contradictions. Fear serves as an affective catalyst that perpetuates the cycle of material accumulation and spending. While these activities carry the promise of eliminating fear through increased security, such safety cannot be accomplished through a power structure that depends on terror for its continued survival.

⁵ As I noted in the first chapter, capitalism operates as an interconnected network that relies on both state and anti-state forces. This system is what I characterize earlier as the “terror network.”

Players establishes the link between capitalism and terror on which DeLillo's later fiction elaborates. It also investigates the concept of systems that is so central to DeLillo's understanding of contemporary literature and the process of meaning making that it enables. As the final section of the novel announces, "The idea is to organize this emptiness" (211). This statement does not merely suggest the importance of pattern recognition that has since become a key area study for cognitive scientists and computer scientists working with network theory. For DeLillo, the literary organization of the contingent and the chaotic depends on branching thought that complicates linear narratives and breaks down binary oppositions. Politics and terror; accumulation and loss; market order and anarchic chaos are shown to be components of a single system — an interlinked network that receives an even more sophisticated elucidation in DeLillo's later fiction.

DeLillo's seventh novel, *The Names*, published in 1982, utilizes the language of interconnection more explicitly than *Players* to explore the spread of American finance culture and its terrifying impact around the world. Instead of treating abstract financial systems, this novel investigates global economic networks. The protagonist, freelance writer James Axton, works as a "risk analyst" for the Northeast Group: a firm that is "part of a monster corporation" that sells insurance to foreign companies operating in unstable zones (*The Names* 242). Axton's company

is “a wholly owned subsidiary” that belongs to a conglomerate with extensive global reach (242).⁶ As he goes about his work, Axton finds himself at the periphery of a metaphysical thriller plot concerning a mysterious language cult that commits low-profile murders. The protagonist begins to track this violent group through Greece, Jordan, and India. Despite this unifying thread, *The Names* is composed primarily of discrete episodes in which Axton converses with friends, family, and fellow American business people who work for various banks and multinationals.

In the early 1980s, the time of the novel’s publication, both the concept of globalization and the metaphor of the network were gaining cultural cachet. The emergence of concerns about global interdependence and the growing interest in computer networks contributed to this proliferation of network thought and language. Appropriately, DeLillo’s protagonist James Axton, a product of this era, is a global citizen, never rooted in a single location for more than a few days and floating through a “world of corporate transients” (*The Names* 54). As the protagonist puts it himself, “I traveled between places, never in them” (143). As this observation demonstrates, *The Names* is a novel of topologies and transits, not of spaces and stable cartographies. It is a book not of places, but of the links between them. From a

⁶ As Axton’s boss Rowser puts it, “The parent is a collector. They acquire companies, they adjust, they seek a balance. We’re one of the companies, that’s all. They look at the profit curve. That’s all they know from” (268).

formal perspective, the world of the novel is a web of episodic nodes: an interconnected topology that increases complexity rather than resolving it. As Axton's friend Lindsay puts it, challenging the popular "small worlds" language of the period, "How big the world is. They keep telling us it's getting smaller all the time. But it's not, is it? Whatever we learn about it makes it bigger. Whatever we do to complicate things makes it bigger. It's all a complication. It's one big tangled thing" (322-3). She further observes, "Modern communications don't shrink the world, they make it bigger. Faster planes make it bigger. They give us more, they connect more things. The world isn't shrinking at all." (323).

The new world's tangle — its ever-growing "complication" of "things" — takes the form of a series of expanding global financial networks. Axton's friend Charles Maitland — a man who works with "complex systems, endless connections" — signals the shape of this new world with a punchy description of the world of business (313). "It is like the Empire," he reflects, "Opportunity, adventure, sunsets, dusty death" (7). Notably, this line draws a parallel between European imperialism and the neo-imperial American order of economic dependence, but it also marks a key non-equivalence between these paradigms. The system of global business, after all, is only "like the Empire" — not wholly coextensive with it. The new model of power is not driven by an engine of bureaucratic violence. It takes the form of a

network with its myriad involvements, dependencies, and anxieties. It takes the shape of a web that becomes visible not through its substance, but through its intricate linkages.

The Names depicts global connections indirectly through network aesthetics. The partial nature of this literary portrait, however, does not diminish its ambition. Indeed, the totality of any web is only accessible through the shorthand of fractional representations and metaphorical figures. Axton makes a similar observation, early in *The Names*, when he notes, “The price of oil was an index to the Western world’s anxiety. It provided a figure, \$24 a barrel, say, to measure against the figure of the month before or the year before. It was a handy way to refer to our complex involvements. It told us how bad we felt at a given time” (66). Here, the price of oil is a rough indicator — a numerical synecdoche — of Western anxiety. DeLillo performs a similar operation throughout his fiction. Instead of relying on numerical approximations, however, he transmits the contours and affective residues of global financial networks through language.

The networks of American globalization gestured toward throughout *The Names* are both economic and political in nature. James Axton explains that his work as a risk analyst puts him at the intersection between these realms:

I review the political and economic situation of the country in question. We have a complex grading system. Prison statistics weighed against the number

of foreign workers. How many young males unemployed. Have the generals' salaries been doubled recently. What happens to dissidents.... Together we analyze the figures in the light of recent events. What seems likely? Collapse, overthrow, nationalization? Maybe a balance of payments problem, maybe bodies hurled into ditches. Whatever endangers an investment (33-4).

Axton's company seizes upon the relation between capital and terror. He understands himself belonging to a "data collection network" coordinated by his boss Rowser (48). Rowser, in turn, works with "a set of interlocking facts he'd drawn from tons of research material on the cost-effectiveness of terror" (46). He analyzes the ways that global probabilities of "collapse, overthrow, [and] nationalization" might be linked to opportunity. As this passage suggests, finance — the management of time, money, and risk — thrives on political crisis. Crises, from military coups to revolutions, produce a clean slate and enable the generation of new markets.⁷ Catastrophes drive a process of strategic flux that stabilizes some markets and destabilizes others in order to maximize profit.

Political crisis in *The Names* serves as the modus operandi of American capitalism and the means by which this economic ideology achieves a global scale. In her book *The Shock Doctrine*, Naomi Klein offers a lucid historical framing of the way this nexus between capitalism and terror has developed since the middle of the

⁷ As Milton Friedman, the founder of the Chicago School of Economics, wrote in the 1982 preface of his neoliberal manifesto *Capitalism and Freedom*: "Only a crisis—actual or perceived—produces real [economic] change. When the crisis occurs, the actions that are taken depend on the ideas that are lying around" (Milton Friedman in Naomi Klein 174). For more, see: Milton Friedman's *Capitalism and Freedom*.

twentieth century — the historical period that most consistently informs DeLillo's fiction. Thinking through the global dimension of American supremacy, Klein contends that military coups from Indonesia to Chile, as well as wars from Afghanistan to Iraq, were not primarily features of "the dirty fight against Communism or terrorism." Instead, since the 1960s, shocks wars, and disasters have been used tactically in "the fight *for* the advancement of pure capitalism" (Klein 24). In *The Names*, precisely these types of crises serve as the underpinning of Axton's threat assessments, which his company uses to determine risk rates, insurance premiums, and corporate profits. One of Axton's friends, Dot Borden, gestures toward this type of connection between crises and financial returns: "War, revolution, ethnic uprisings. Future value, future gain" (219). While Borden's series of noun phrases may appear to be a non sequitur, it suggests a more sinister and entangled network logic that links violence and finance.

Crises produce profit for Axton, Rowser, and the Northeast Group, but the novel suggests that they also serve broader American political interests. Andreas, one of Axton's Greek contacts, makes this point by describing the relationship between the U.S. and other countries that are dependent on American power: "We all take each other's money. This is the role of the present government. Take the Americans' money, do what the Americans tell us to do. It is breathtaking, how they

submit, how they let American strategic interests take precedence over the lives of Greeks” (235). He continues: “Our future does not belong to us. It is owned by the Americans” (236). This ownership of another’s “future” demonstrates the ways in which American economic control is intertwined with U.S. dominance of global space. The assimilation of new markets entails a parallel colonization of temporality. The exchange of and investment in financial “futures” enables a temporal power over the “future” of non-Americans. In other words, the perpetual speculation about an abstracted future traps us in an ahistorical crisis-ridden present. As Axton’s wife, Kathryn, from whom he is separated, admits: “I think I distrust the idea of investing, somehow, more than corporations themselves.... There’s something secret and guilty about investing.” Finance, she concludes, is “the wrong use of the future” (12).

The macro-economic seizure of control through the production of foreign dependencies and underdevelopment of other countries in *The Names* points to an imbalanced capitalist network. The inequality of this system is named explicitly by Axton’s friend David Keller who works in international banking. While on vacation, Keller asks “Why do I miss my countries?” He continues this line of thought in a conversation with Axton:

‘My countries are either terrorist playpens or they’re viciously anti-American or they’re huge tracts of economic and social and political wreckage.... Why can’t I wait to get back into it? Why am I so eager? A hundred percent

inflation, twenty percent unemployment. I love deficit countries. I love going in there, being intimately involved.'
'Too intimately, some might say.'
'You can't be too intimate with a Syrian, a Lebanese,' he told me.
'When they allow you to monitor their economic policies in return for a loan. When you reschedule a debt and it amounts to an aid program.'
'These things help, they genuinely help stabilize the region.' (233).

The dependency of countries such as Syria or Lebanon on U.S. finance produces an intimate involvement — an indissoluble connection — between nations. This relationship, of course, is far from equal. In exchange for debt management, underprivileged countries cede power over their “economic policies.” American corporate and government officials leverage crises, military coups, and acts of terror as opportunities to impose a U.S. vision of the capitalist order on the world. As Andreas explains, “American strategy. This is interesting, how the Americans choose strategy over principle every time and yet keep believing in their own innocence. Strategy in Cyprus, strategy in the matter of the dictatorship. The Americans learned to live with the colonels very well. Investments flourished under the dictatorship. The bases stayed open. Small arms shipments continued.” (236).

The focus of *The Names* is not a particular character or plot but rather economic interdependency and interconnection itself. Notably, the climax of the novel does not involve a definitive explanation of the homicidal language cult that appears, at the start, to be the narrative's central object. This strange organization

grows increasingly idiosyncratic and insignificant as Axton pursues it around the world. Abandoning this focal point, the novel's ultimate narrative move is to craft a revelation about the system that undergirds the fictional world rather than to offer a narrative denouement about a terror cult, as the reader is led to expect. In the final pages, we find out that "the Northeast Group, an American firm selling political risk insurance, has maintained a connection with the U.S. Central Intelligence Agency since its inception" (315). In other words, the company for which James Axton has been working is secretly supplying the CIA with information about global politics.⁸

This exposé blurs the line between finance and politics. Of course the suggestion of such an overlap is present throughout the novel, as when Axton's friend Ann tells him that Andreas "wonders why your main office is in Washington and not New York" (242). The alliance between an American insurance company and the U.S. government suggests that the CIA is invested not in preserving some postwar image of a geopolitical balance, but in advancing capitalism around the globe, at any cost necessary. Notably, this ending does not imply the open secret that

⁸ The entangling conspiracy plot revealed at the end of *The Names* has a more generalized counterpart in *Players*. In that novel, the terrorist J. Kinneer notes, "It's everywhere, isn't it? Mazes, you're correct. Intricate techniques. Our big problem in the past, as a nation, was that we didn't give our government credit for being the totally entangling force that it was. They were even more evil than we'd imagined. More evil and much more interesting. Assassination, blackmail, torture, enormous improbably intrigues. All these convolutions and relationships" (*Players* 104). The government is a plurality: a "haze of conspiracies and multiple interpretations" (104). In *The Names* the entanglement of the American government takes a more precise global economic form.

state support is ensuring corporate growth. It suggests the more frightening idea that corporate institutions are shaping American governmental agencies and *producing* the state. Both *Players* and *The Names* depict the outlines of an insidious network that links economic to political agents and blurs these boundaries in the process.

2.2 “The Shot Heard ‘Round the World’”: From Game Theory to Networks in Underworld

While *The Names* portrays worldwide nodes of the global financial network, DeLillo’s 1997 encyclopedic novel *Underworld* shrinks its geopolitical scale to the United States in order to explore what makes this system quintessentially American. Rather than reflecting on undifferentiated masses, like its immediate predecessor *Mao II* (1991), *Underworld* utilizes the vocabulary of networks more extensively than any other DeLillo novel. The novel itself takes the form of a web that links together intertwining characters and histories. Set across half a century — from a 1951 prologue to a near-future epilogue — the core of the book moves backwards from the 1990s to the 1950s. Through this epic course, the novel characterizes American capitalism by dealing with baseball, in particular, and the structure of games in general. *Underworld*’s relationship to game theory, both in its politico-economic and structural registers, provides a way to examine American financial dominance. It

also allows DeLillo to explore the psychology of cognitive dissonance that underlies and sustains such a distributed network at the level of individual actors.

Underworld begins with the scene of a crowd “going to a game” (11).

Appropriately, the epic novel starts on October 3, 1951, a day that was punctuated by two major events. The first event was the famous pennant game between the New York Giants and the Brooklyn Dodgers that ended with the three-run homerun that came to be known as “The Shot Heard Round the World.” The second was the Soviet Union’s test of its second atomic bomb, which marked a competitive intensification of Cold War tensions. The juxtaposition of an American sports game with the arms race contest proves more than coincidental.⁹ Throughout *Underworld*, sports strategy and Cold War strategy continue to be historically, psychologically, and thematically concatenated.

It is impossible to make sense of the connection between games and geopolitical contests without turning briefly to mathematical game theory, which had a major influence on politics and economics alike, beginning in the mid-1940s. Game theory emerged as a major field of study in the 1940s, particularly after the release of the 1944 book *Theory of Games and Economic Behavior*: a collaboration

⁹ Marvin Lundy explicitly marks the connection between the baseball game and the nuclear test when he speculates that so many people stayed home from this important game because they “sensed there was a connection between this game and some staggering event that might take place on the other side of the world” (*Underworld* 172).

between mathematician John von Neumann and economist Oskar Morgenstern.¹⁰ Economic theorists Mary Ann and Robert W. Dimand define game theory as the “analysis of situations of strategic interdependence” in which “the entire payoff structure faced by one player depends on decisions, or ‘moves’, made by other players” (2). Game theory, in other words, is the science of strategic behavior that depends on the interactions among a web of rational actors. This theoretical approach first entered the social sciences, particularly political science and economics, in the 1950s.¹¹ Following World War II, researchers increasingly turned toward a mode of economic realism that was sustained by quantitative analysis and computer-enabled models. New alliances among military science, economics, and computation gave rise to an interdisciplinary science of game theory. Historian of economics Philip Mirowski explains this development: “The American orthodoxy became more formal, more abstract, more mathematical, more fascinated with issues of algorithmic rationality and statistical inference, and less concerned with the fine points of theories of collective action or institutional specificity” (157). For economists, this intellectual development carried with it “an aspiration to render the

¹⁰ E. Roy Weintraub offers a useful gloss of this history in *Toward a History of Game Theory*. He explains that, beginning in the 1940s, a major intellectual movement termed “the Probabilistic Revolution” took place and brought together statistic, economics, and mathematics (5). Game theory was a major product of this intellectual paradigms shift. Starting with Neumann and Morgenstern’s influential text, this field flourished throughout and after the Cold War.

¹¹ For more on the history of game theory in political science, see: William H. Riker’s “The Entry of Game Theory into Political Science” (in Weintraub).

operations of the economy manifest and comprehensible by comparing its configuration to that of rational mechanics” (Mirowski 517).

While this history represents a key context of the world depicted in *Underworld* and a primary object of its critique, the game theory in the novel is not mathematical in nature. The recurring topic of baseball suggests another way of thinking about games, their rules, and the networks in which they play out. As the reader quickly learns, the object that connects the numerous characters in the novel, across five decades of American life, is the baseball that Bobby Thompson homered to win the 1951 pennant game. Nick Shay, the eventual owner of the ball in the 1990s, observes this connectivity as he holds the near-sacred object during a spell of insomnia: “You have to know the feel of a baseball in your hand, going back a while, connecting many things, before you can understand why a man would sit in a chair at four in the morning holding such an object, clutching it” (*Underworld* 131). In this passage, the value of the baseball derives from the association it enables among events, people, and things. Marvin Lundy, an obsessive collector of baseball memorabilia and longtime owner of the famous ball, reinforces the sense of interconnection that Nick feels when he holds the object. Lundy tracks the ball’s complicated lineage and develops that experience into a comprehensive worldview — what he calls “the dot theory of reality.” He articulates this *Weltanschauung*

when describing the rigorous research he did to document the ball's trajectory: "I looked at a million photographs because this is the dot theory of reality, that all knowledge is available if you analyze the dots" (175). Positing the world as a vast network made up of innumerable nodes, he explains, "Reality doesn't happen until you analyze the dots" (182).

As *Underworld* unfolds, the mythical baseball is revealed as a hub in a global capitalist network. In the prologue of the novel, a young African American boy, Cotter Martin, who skips school in order to sneak into the pennant game, comes away with the ball. Despite his luck in obtaining the ball, the boy's marginal status and illegitimate presence at the game make subsequent verification of the object's authenticity virtually impossible. Nevertheless, nearly from the start, the ball is revealed to be the American fetish object *par excellence*.¹² When Cotter's father Manx discovers that his son has the valuable object, he observes, "Crazy to let the thing sit here and do nothing and earn nothing" (146). Immediately, the baseball is converted

¹² In a sense, the novel *Underworld* was itself treated as a literary fetish object, even before its publication. Marketed as the magnum opus of the foremost living American writer, the book was sold for millions during a now-infamous 1996 auction. As Jonathan Bing explains, "The novel itself has been quickly assimilated by the publishing industry. In an auction that began on October 29 last year and closed, aptly enough, on Halloween, hardcover and paperback world English-language rights were purchased by Scribner editor-in-chief Nan Graham for what is rumored to be \$1.3 million, a deal that made headlines in half a dozen magazines. It was optioned two weeks later by Scott Rudin at Paramount, reportedly for another \$1 million. Audio rights also went to Simon & Schuster, making *Underworld* a vertically integrated property of Viacom — a feat of corporate packaging that conspiratorial-minded readers might say bears the ominous echo of DeLillo's own novels."

into an exchange commodity — an article that can “do” something only insofar as it can “earn” something.¹³ As the object travels from person to person, it gains value and accumulates a richer history. In his reflections on the ball, Marvin Lundy realizes, it “was an object passing through. But it inspired people to tell him things, to entrust family secrets and unbreathable personal tales, emit heartfelt sobs onto his shoulder.... Their stories would be exalted, absorbed by something larger, the long arching journey of the baseball itself and his own cockeyed march through the decades” (318). The ambiguous “something larger” that absorbs all of these stories is the American capitalist network.

Underworld draws many connections between the American game of baseball and the equally American game of global hegemony that is based in economic and military power. The phrase that DeLillo uses to dramatize this connection is the “Shot Heard ‘Round the World” — a designation coined by Ralph Waldo Emerson to describe the breakout of the American Revolutionary War and later adapted, by the *New York Daily News*, to dramatize the sign stolen by the Giants to win their infamous baseball series with the Dodgers (44). Admittedly, when applied to the home run, this characterization invites skepticism. In the novel, BBC producer Jane

¹³ At the same time, the baseball transcends merely economic motivations. For example, as Cotter notes after acquiring the ball for the first time, “The ball’s not for sale. Not this ball” (55). Later in the novel, Nick Shay acquires the ball and has an even more complicated relationship to the object.

Farish observes that the name is “a little bit of American bluster” (95). Another character, Albert Bronzini, also inquires, “The Shot Heard Around the World? Is the rest of the world all that interested? This is baseball. I was barely aware” (669).

Despite or precisely because of its American-centrism, however, this name is telling.

In response to Bronzini’s disbelief, his friend Father Andy Paulus explains the motivation behind the popular slogan:

We may take it that the term applies to the suddenness of the struck blow and the corresponding speed at which news is transmitted these days. Our servicemen in Greenland and Japan surely heard the home-run call as it was made on Armed Forces Radio. You’re right, of course. They’re not talking about this in the coffeehouses of Budapest. Although in fact poor Ralph Branca happens to be half Hungarian. Sons of immigrants. Branca and Thomson both. Bobby himself born in Scotland, I believe. You see why our wins and losses tend to have impact well beyond our borders (670).

Precisely because baseball was primarily an American game in the 1950s, the elevation of a national phenomenon into an international news story points toward a global communications network over which the United States has prime control. It is no coincidence that it is American “servicemen” who hear the announcement on “Armed Forces Radio.” Power over communications requires a worldwide military presence. Given the global infrastructure constructed according to U.S. interests, American “wins and losses tend to have impact well beyond our borders.”

American economic and political rules, which ensured that it accrued considerably more wins than losses, were the basis of the nation’s unparalleled power. In the

years following World War II, the connection between America and the rest of the world grew increasingly into a dependency.

Underworld suggests that the logic of competitive games undergirds contemporary American economic and political networks. Anthropologist John D. Kelly makes precisely this argument when he contends that we misunderstand American power in turning to older models of empire-building and neo-imperialism. Through a case study of the global impact of baseball, he concludes that “games, and the structures of games, is the key modality of US power” (26).¹⁴ In an economic register, corporate capitalism is “about controlling the framing and staging of commodity transactions, about controlling the terms of trade, the rules of the game.” It is about “making the world safe for your game” (Kelly 162). Indeed, the Cold War struggle, in particular, has been framed repeatedly through the language of games. In *Underworld*, Marvin Lundy employs this discourse when he explains, “The cold war is your friend. You need it to stay on top.... You don’t know the whole thing is geared to your dominance in the world?” (171). Later, in the novel’s

¹⁴ While I am more interested in Kelly’s argument as it helps elucidate the structure of American power around the world, he also offers an insightful analysis of the network of baseball, as a business, around the world: “The line of movement from clubs to leagues to Organized Baseball remade baseball into an increasingly interconnected congeries of commercial institutions, made baseball into a branch of what Americans like to call ‘free enterprise’ Baseball reorganized from independent clubs, originally player-oriented leisure groups, into profit seeking corporations in a legally powerful cartel” (59). He subsequently uses baseball as a key case study, asking the larger question, “What is baseball, when it is not only a genre of game, but also, a genre of capitalist enterprise?”

post-Cold War epilogue, Russian capitalist entrepreneur Viktor Maltsev similarly frames the conflict as a “contest” when he reminds American Nick Shay, “You won, we lost. You have to tell me how it feels. Big winner” (793).

Underworld draws connections between the game of baseball and the game of American capitalism in order to problematize the logic of competitive play. In addition to the recurrence of baseball, chess provides DeLillo with an opportunity to analyze the language of games. Matt Shay, a central character who goes on to work for a government weapons project, spends his youth developing his talent for chess. In later years, after he has given up the game, Matt explains one of the reasons he grew uncomfortable with chess: “I came to hate the language.... You crush your opponent. It’s not a question of win or lose. You crush him. You annihilate him. You strip him of dignity, manhood, womanhood, you destroy him, you expose him publicly as an inferior being. And then you gloat in his face” (212). As Matt observes, games do not only make possible wins and losses; they enable a violence that aspires to total annihilation. In a novel that produces a literary history of contemporary America, it is especially significant that this destructive desire that drives many competitive games is supported through its ahistoricity. Albert Bronzini, Matt’s chess instructor, notes, “The thing about these games.... They mean so much while you’re playing. All your inventive skills. All your energies” (663). For all of their

importance in the present, he concludes that children's games have "No history, no future" (666).

Bronzini's point about the present-centrism of games becomes much more unsettling as soon as the reader realizes that not all games are played by children — and that those games played on an international stage, with geopolitical aspirations and nuclear stakes, are frequently a matter of life and death. Continuing Bronzini's assessment of chess, Father Paulus explains that in addition to being "prideful, arrogant, aggressive, contemptuous and dominating," a successful chess player "must have a killer instinct." (674). It is this fatal component of games that represents the greatest challenge to the realist political ideology and rationalist economic policy enabled by game theory.

Underworld depicts the relationship between games and death in American policy most successfully through its juxtaposition of two paintings produced by Flemish artist Pieter Bruegel the Elder in the early 1560s: *The Triumph of Death* and *Children's Games*. The former painting dominates the opening of DeLillo's novel, whereas the latter haunts the end. In the prologue, shortly after learning that the Soviet Union has conducted its second atomic test, a fictionalized J. Edgar Hoover character finds a *Life* magazine reproduction of *The Triumph of Death* — a terrifying apocalyptic panorama of the dead arrived to take away the living (41). Much like the

nuclear contest with the Soviets, the “Terror universal” suggested by this “landscape of visionary havoc and ruin” excites Hoover (50, 41). Distracted from the baseball game he’s attending, the FBI Director is overcome by the victory of death captured in the painting. Much as the Americans and Soviets play a game of mutually assured destruction, so Bruegel’s painting portrays a landscape of total fatality: “The old dead fucking the new” (51).

The total death depicted in *The Triumph of Death* finds a curious counterpart in Bruegel’s painting *Children’s Games*. Toward the end of *Underworld*, Albert Bronzini mentions this earlier Bruegel painting — another panorama, this time of a town overrun by playing children — to his wife Klara. She observes, “I don’t know what art history says about this painting. But I say it’s not that different from the other famous Bruegel, armies of death marching across the landscape. The children are fat, backward, a little sinister to me. It’s some kind of menace, some folly. *Kinderspielen*. They look like dwarves doing something awful” (682). In this passage, Klara likens the chaos of destruction to the anarchy of unregulated children at play. For all of the differences between these paintings, they assume a compositional symmetry and a thematic linkage.

The connection between death and children’s games, suggested by the juxtaposition of these Bruegel paintings, comes up even more explicitly in the

epilogue of the novel in which Nick Shay, in his role as a waste management executive, visits a radiation clinic in Kazakhstan where patients suffer the effects of decades of Russian nuclear testing including “disfigurations, leukemias, thyroid cancers, immune systems that do not function” (800). During this trip, Nick observes a group of deformed kids: “Children played a game in the dirt, six boys and girls with missing arms, left arms in every case, knotted below the elbow. The eyeless boy was also here, squatted on his haunches, facing the players as if in careful observation of their efforts.... The kids are playing follow the leader. A boy falls down, gets up. They all fall down, get up” (802). This passage captures the concurrent innocence and terror that Klara sees in Bruegel’s *Children’s Games*. In an immediate sense, these young “players” are simply engaged in a make-believe game in which they can “get up” after they “fall down.” From an extended historical standpoint, however, the radiation of the Russian nuclear tests has done real and inalterable damage to this population. Unlike the standards of fairness that govern the children’s games, the rules of the Cold War did not require a comparable evenhandedness. Viktor Maltsev, who accompanies Nick on this visit, explains the way the Russian government’s regulatory inconsistency demonstrates a disregard for human life. “Every time they did a test,” he notes, “hundreds of towns and villages exposed to radiation. Ministry of Health says, Okay we raise limit again.

When limit is passed, Okay we raise again.” (801). Maltsev suggests that when laws intended to protect human beings are treated as arbitrary rules in a game, injustice and death are inevitable consequences.¹⁵

The point of DeLillo’s connection between games and death is not to suggest that all games are destructive. Nevertheless, an economic system and foreign policy founded on decontextualized game rules favors abstract strategy that reduces or altogether elides material reality. The game theory paradigm that dominated Cold War thinking was not only conceptually abstract, but unapologetically ahistorical. In his study, Kelly articulates this critique clearly when he writes, “Game theory, in Economics, Political Science and elsewhere, is blind to cultural difference and deliberately reductionistic toward historical specificity.”¹⁶ Indeed, game theory is most effective when it operates without a context. Kelly continues:

¹⁵ The connection between games and death recurs throughout DeLillo’s fiction. In *Underworld*, a narrative thread concerning the Texas Highway Killer who murders people in drive-by shootings raises the question of fatal games. In one passage, the killer discusses his motivations with a reporter, noting “if this is all a game, then take it as a game” (*Underworld* 216). DeLillo also explores this linkage in earlier texts. For example, the opening scene *Players* depicts a movie scene in which a group of “white, male, portly” suburban figures appear on a golf course (*Players* 5). Their game, however, is quickly interrupted by the arrival of terrorists on the fairway. The juxtaposition of “lush slaughter” with a game of golf — a sport characterized as “that anal round of scrupulous caution and petty griefs” — produces an aesthetic of “gruesomely humorous ambiguity” (9).

¹⁶ Expanding on his critique of game theory’s ahistoricism, Kelly writes, “Game theory drags the economic puritan from the church of limits into a battle-filled casino. The realism of game-based Economics is still a moral realism, not an historical realism, and is still reductionistic, seeking universal features to all situations, just different features: now there are always opposing wills or forces, risks and stakes, opportunity costs making resource allocation a mere special case. The scarcity and game approaches also share some features: along with reductionism and universal modeling, they share the premise of incipience,

Games ruthlessly detach their elements from context, clear a field, substitute purified issues and outcomes for real complexity, dramatize process, heroize and demonize parties in conflict, and teach pursuit of victory. Warfare, investment, democracy and 'nation-building,' even global health policy all become the subjects of game analysis that, incipiently, becomes its own basis for organizing intervention and action (129).

Much as Naomi Klein contends that the U.S. has relied on crises to turn other nations into blank slates susceptible to the incursion of capitalism, Kelly explains that game theory relies on empty space. Game theory posits a theoretical realm that is free of the elements that make up the real world in all of its social and historical complexity.

Underworld reflects on these implications of game theory, but the novel ultimately proposes an alternative historical paradigm for analyzing the latter half of the twentieth century. Instead of a realist game theory that is disconnected from the world it seeks to theorize, DeLillo turns to a more intricate network theory that treats reality as a web of interconnections. The game of baseball may represent a major hub in *Underworld*, but the novel also extends to many other nodes of postwar American life. DeLillo's text is composed of numerous historical dots — the great pennant game of 1951, the launch of the Sputnik program in 1957, a Civil Rights

a much favored moral doctrine in the US, the idea that starting fresh is better, that nothing that has come before really should matter" (128).

rally in 1964, the Northeast Blackout of 1965, and so on.¹⁷ These are events that connect characters and readers alike.¹⁸ Nick Shay's son Jeff observes a similar sense of human interpenetration when he later discusses the effects of internet and computer networks: "Everybody is everywhere at once" (805).¹⁹ For all of the distribution of *Underworld's* plot, across histories and among characters, everything is connected in the end. In the contemporary era, network totality takes the place of the omnipresence of divine being, which served as the dominant Western paradigm of a previous age. Universal interconnection is the new "faith that replaces God with radioactivity, the power of alpha particles and the all-knowing systems that shape them, the endless fitted links" (251).²⁰

¹⁷ The great Northeast blackout, which affected thirty million people, is of particular interest in the context of networks. For all of the functioning networks, this Blackout represents an instance in which a network failed. As Nick Shay reflects, "The power grid gone. What does it mean? The whole linked system down. Or not linked sufficiently perhaps" (*Underworld* 634). This event reveals the increased dependence of human beings on network infrastructures.

¹⁸ In one passage, DeLillo even uses second-person narration to interpellate the reader, referring to a network of "forces beyond your control, lines of intersection that cut through history and logic and every reasonable layer of human expectation" (*Underworld* 157).

¹⁹ Nick repeats this point when he notes, "The real miracle is the web, the net, where everybody is everywhere e at once" (808). In the epilogue, *Underworld* uses computer network aesthetics, including a web address (810) and keystroke markers (817), to signal breaks between sections.

²⁰ This passage raises a question about the relationship between the network sublime and religious transcendence. Fredric Jameson curiously remarks, "It has been affirmed that, with one signal exception (capitalism itself, which is organized around an economic mechanism), there has never existed a cohesive form of human society that was not based on some form of transcendence or religion" ("Cognitive Mapping"). Even as capitalism is exceptional in this regard, DeLillo's prose demonstrates that capitalism's vision of transcendence *is* the interconnected network, which extends everywhere; or, rather, the network is a figure of an immanent plane that, in its very totality, proves transcendent.

The network that *Underworld* embodies is not an arbitrary tangle of forces and actors. DeLillo's linkages make visible the American capitalist network. In one key passage, Nick Shay's coworker Brian Glassic has a glimpse of this systemic interconnection during a drive to Manhattan:

He drove into the spewing smoke of acres of burning truck tires and the planes descended and the transit cranes stood in rows at the marine terminal and he saw billboards for Hertz and Avis and Chevy Blazer, for Marlboro, Continental and Goodyear, and he realized that all the things around him, the planes taking off and landing, the streaking cars, the tires on the cars, the cigarettes that the drivers of the cars were dousing in their ashtrays—all these were on the billboard around him, systematically linked in some self-referring relationship that had a kind of neurotic tightness, an inescapability, as if the billboards were generating reality, and of course he thought of Marvin (183).

Glassic's drive takes him through a barrage of things. DeLillo's single long sentence reproduces the experience of speeding along the ultra-capitalist space of the highway. The syntax mirrors the meaning, as verbs cede to an unrelenting list of proper nouns. The correspondence between the billboards and the physical products that surround Glassic produces a surreal effect. It seems as if the advertisements are "generating" the "reality" of objects and becoming coterminous with it. This entanglement of signifiers and signifieds — commercials and commodities — leads Brian to an association with the memorabilia collector Marvin Lundy whose hobby is to gather valuable objects. More broadly, this passage registers the connection between capitalist ideology and the world — two entities that are "systematically

linked” in a “self-referring relationship.” Instead of a linear logic of causality, which still informs the structure of games, the late twentieth century operates according to a logic of interconnection, which resists attempts at chronological unraveling. Even as Marvin studies the network of the infamous baseball, for example, he can never create a map that accurately captures the totality of social relations that this object enables. As the novel suggests, in the latter half of the twentieth century, the world becomes a self-referential web weaved with a terrifying precision — a “neurotic tightness.”

In DeLillo’s sentence, the “neurotic tightness” that Brian Glassic feels operates not only as a network metaphor, but also as a psychological state. This condition, I contend, is the individual cognitive counterpart to multinational capitalism’s larger networked structure. DeLillo’s depiction of Glassic’s “neurotic tightness” powerfully captures the paradoxical epistemology that informs all contemporary networks in some way. Networks introduce a complexity of interconnections that depends concurrently on order and chaos: a simultaneous organization of and inundation with knowledge. In the network era, we have access to increasing quantities of information, but are frequently less able to synthesize meaning from data that proliferate exponentially. Even as we can gather more raw facts than ever before, most of us know less about the meta-structures and

technologies that frame this knowledge. DeLillo's fiction captures the mentality of precisely this cultural crisis of cognitive dissonance — of simultaneously knowing and not knowing.

The psychology that DeLillo traces through *Underworld* gradually elucidates the cognitive effect of multinational capitalism and its network structures. The crisis of cognitive dissonance is, of course, already a key feature of *The Names*. That novel is narrated entirely from the first-person perspective of risk analyst James Axton. Through this man's intimately tight point of view, DeLillo demonstrates a contemporary subjectivity that oscillates between knowing and not knowing. The language of this earlier novel is infused with a sense of secrecy, unknowing, and participation in an incomprehensible totality. Even moments seemingly free of economic influences are inflected with this preoccupation as when Axton describes an experience shared with his ex-wife Kathryn: "The force of the moment was in what I didn't know about it, standing there, the night tides returning, the mortal gleanings that filled the space between us, untellably, our bodies arranged for dreaming in loose-fitting clothes" (*The Names* 82). In this passage, Axton romanticizes his sense of not knowing. Significantly, the unknown becomes a relational entity that fills "the space between" Axton and Kathryn.

The consequences of unknowing and uncertainty that Axton recognizes in his interpersonal relations extend to a global register as well. In their business travels around the world Axton and his business class colleagues feel “deeper fears, hesitations, a rife disquiet” without understanding their source. Axton confesses, “There was around us almost nothing we knew as familiar and safe” (*The Names* 94). This directionless anxiety leads Axton’s circle into a collective unknowing and forgetting: “It is not surprising, therefore, to see men with submachine guns, to see *vultures* squatting on the baggage vehicles set at the end of the tarmac in the airport in Bombay when one arrives after a night flight from Athens. All of this we choose to forget. We devise a counter-system of elaborate forgetfulness. We agree on this together” (*The Names* 254). As this passage suggests, forgetting is not an unintentional individual cognitive operation, but a willful collective task.

For all of their reflections on their place in the world, the Americans in *The Names* never realize precisely what their “counter-system of elaborate forgetfulness” helps them overlook. At most, they see only the surface of terror and poverty of places like Bombay through which they pass quickly. Even so, there is a vague impression of a deeper structure to their lack of knowledge. The “sense of things was different in such a way that we could only register the edges of some elaborate secret. It seemed we’d lost our capacity to select, to ferret out particularity and trace

it to some center which our minds could relocate in knowable surroundings." (*The Names* 94). *The Names* suggests that this "elaborate secret" that inspires constant terror is the system of capitalism itself — a totality whose "edges" these Americans can "register" but never quite "trace" or "relocate in knowable surroundings." When Axton first glimpses this network in the climax of the novel, which reveals his company's illicit ties with the CIA, it is the partial nature of his knowing that overwhelms him most: "But I couldn't manage to extend the seeming meagerness of the crime to my own blind involvement. Those who engaged knowingly were less guilty than the people who carried out their designs" (*The Names* 317).

Underworld reflects even more extensively on the mentality that allows individuals like Axton to negotiate the intricate linkages of the global capitalist network while actively forgetting many of its most glaring contradictions. One extended episode, a terrifying centerpiece that takes place at the massive novel's exact midpoint, demonstrates the cognitive dissonance that accompanies the global system of the late twentieth century. The sequence, set in 1974, follows Matt Shay in his work for "the Pocket" — a U.S. government operation in southern New Mexico where he does mathematical "consequence analysis" on the effects of "a nuclear accident or limited exchange" (*Underworld* 401). Matt explains that the staff of the Pocket has access to classified information and specialized expertise, but the venture

is also founded on an atmosphere of secrecy: “There were people here who weren’t sure whether they were doing weapons work. They were involved in exploratory research and didn’t know exactly what happened to their findings, their simulations, the results they discovered or predicted” (401). The operation’s knowledge control is achieved through the division of labor and decentralization of information. This extensive scattering represents “one of the underlying themes of the systems business, where all the work connects at levels and geographic points far removed from the desk toil and lab projects of the researchers” (401).

The geographic distribution of “points” is seen as paramount to the smooth operation of the “systems business.” The mystery of an interconnected totality that is forever out of view generates both terror and awe in Matt:

There were people here who didn’t know where their work ended up, how it might be applied. They didn’t know how their arrays of numbers and symbols might enter nature. It could conceivably happen in a flash. Everything connected at some undisclosed point down the systems line. This caused a certain select disquiet. But it was a splendid mystery in a way, a source of wonder, how a brief equation that you tentatively enter on your screen might alter the course of many lives, might cause the blood to rush through the body of a woman on a tram many thousands of miles away, and how do you define this kind of relationship? (408-9).

In the Pocket, direct causal relationships dissolve. Branching webs — a “kind of relationship” that Matt finds indefinable in 1974 — take the place of sequential

chains of consequence. In this scheme, “everything connected” but only “at some undisclosed point down the systems line.”

The operational paradox of the Pocket is that it both connects and disconnects its personnel. As with the earlier “neurotic tightness” experienced by Brian Glassic, DeLillo again invokes this paradox by describing a tautness: “The Pocket was one of those nice tight societies that replaces the world. It was the world made personal and consistently interesting because it was what you did, and others like you, and it was self-enclosed and self-referring and you did it all together in a place and a language that were inaccessible to others” (412). The Pocket, then, is a “tight” society. This adjectival choice suggests a soundness or intimacy, but it also connotes a tense constriction. Tightness implies a connective link, but one that is unrelaxed or rigid. In its tightness, the Pocket is a decidedly closed system. It is a “self-enclosed and self-referring” world that is “inaccessible” to anyone uninitiated in its order. Even as the Pocket thrives on connections made among its experts, it also disconnects them from the outside world and ultimately from one another.²¹

Unsurprisingly, Matt adopts the language of networks to describe the vague relationship between his work and the distant lives that his abstract calculations are

²¹ The disconnection that comes with secrecy is captured well in a thought Manx Martin (the father of Cotter Martin who comes away with the 1951 pennant ball) has about U.S. currency: “What’s the point of all the secret codes on a U.S. dollar except to disconnect you from the people who know the facts?” (*Underworld* 365). This link between secrecy and capital recurs throughout the novel.

likely to alter. "He was surrounded by enemies. Not enemies but connections, a network of things and people. Not people exactly but figures — things and figures and levels of knowledge that he was completely helpless to enter" (421). Matt goes on to identify paranoia as the psychological affect most proper to the network that surrounds him. At a party thrown by the "bombheads," he is overcome by this feeling, which suggests both a psychology and a broader contemporary American epistemology (420). "Paranoid. Now he knew what it meant, this word that was bandied and bruited so easily, and he sensed the connections being made around him, all the objects and shaped silhouettes and levels of knowledge — not knowledge exactly but insidious intent" (421). This peripheral sense of sinister connectedness quickly develops into a vision of a vast network: "He felt he'd glimpsed some horrific system of connections in which you can't tell the difference between one thing and another, between a soup can and a car bomb, because they are made by the same people in the same way and ultimately refer to the same thing" (446). Paranoia, here, becomes the psychological residue of a "horrific system of connections." As Matt ponders, spinning in the foundationless vortex of his suspicion, "everything connects in the end, or seems to, or seems to only because it does" (465).

Matt's crisis escalates through this midpoint section of *Underworld*. He feels besieged by a system of endless interconnections that exceeds his understanding and complicates that process of differentiation that is a prerequisite for the production of meaning. The horror he feels stems from a growing inability to tell the difference between things. "And how can you tell the difference between orange juice and agent orange," he asks, "if the same massive system connects them at levels outside your comprehension?" (465). Matt's abstract paranoia causes him to spiral into a more specific ethical discomfort with making ambiguous contributions to a vast network that he knows (and simultaneously keeps himself from knowing) enables a global system of war making and death. The terrifying American assemblage of which Matt captures a glimpse blurs the lines between the real and the unreal. This network of rationalist precision and smooth capital flows makes even the most real human consequence, death, seem like a distant simulation.²² In a powerful passage, Matt explains this dissolution of boundaries to his girlfriend, Janet:

It's mainly that I feel I'm part of something unreal. When you hallucinate, the point of any hallucination is that you have a false perception that you think is real. This is just the opposite. This *is* real. The work, the weapons, the missiles rising out of alfalfa fields. All of it. But it strikes me, more and more, as sheer distortion. It's a dream someone's dreaming that has me in it (458).

²² I am purposefully invoking Jean Baudrillard's language of "simulation," which describes precisely this process in which referentials break down, thereby wholly blurring the distinction between the real and the unreal (*Simulacra and Simulation*).

The most insidious consequence of the system in which Matt finds himself trapped is that it makes human connections and the most important things in life seem like “sheer distortion.”²³ The distribution of the military-industrial complex separates him from the material foundations of his life. It detaches him from the lives of fellow human beings who are impoverished, maimed, and killed by the American system he helps, at a distance and by abstract means, to sustain.

Underworld uses various aesthetic and narrative techniques to make sense of the ubiquity of network metaphors in the late twentieth century. DeLillo’s literary form notably makes an intervention in economic and political form. His project, a reflection on multinational capitalism and a literary reconfiguration of its network system, resembles Fredric Jameson’s characterization of literary modernism as a response to monopoly capitalism that inscribes “a new sense of the absent global colonial system on the very syntax of poetic language itself” (*Postmodernism* 411). Instead of focusing on the totality of the network structure — a task attempted by network sciences — DeLillo’s aesthetics treat *the individual’s experience of this new mode of totality*.

²³ The feeling of helplessness that Matt experiences is a central aspect of paranoia. As Timothy Melley explains in his analysis of paranoia, paranoia and its role in the production of conspiracy theories stems from “agency panic.” He argues, “Agency panic is intense anxiety about an apparent loss of autonomy, the conviction that one’s actions are being controlled by someone else or that one has been ‘constructed’ by powerful, external agents” (vii). Paranoia, in this sense, becomes “not just an interpretive stance, but part of a discourse about agency” (25). One consequence of the concept of the network is that it replaces a model of individual agency with one of collective distribution.

The analog between DeLillo's aesthetic rendering of the network and Jameson's concept of "cognitive mapping" is worth remarking upon to tease out the critical similarities and differences between these approaches. Jameson defines "cognitive mapping" as the "mental map of the social and global totality" (*Postmodernism* 415). It is because the global capitalist network is a totalizing system that a rich cognitive concept of that totality is a necessary prerequisite for generative socio-political acts. Cognitive mapping serves this role by serving as an "aesthetic" that can "enable a situational representation on the part of the individual subject to that vaster and properly unrepresentable totality which is the ensemble of society's structures as a whole" (*Postmodernism* 51).²⁴ DeLillo's *Underworld* captures precisely such an aesthetic, mapping the multinational capitalist network through both space and time. In the passage I cited earlier in which Brian Glassic drives through Manhattan, finding himself engulfed by billboards that seem perfect mirrors of the reality around him, the character lacks precisely a cognitive map. During this drive, Glassic literally finds himself lost: "When he went past Newark Airport he realized he'd overshot all the turnoffs and their related options" (183). The greater loss in this

²⁴ Jameson explains that cognitive mapping, like Althusser's famous definition of "ideology" before it, stresses "the gap between the local positioning of the individual subject and the totality of class structures in which he or she is situated, a gap between phenomenological perception and a reality that transcends all individual thinking or experience" (*Postmodernism* 415).

passage, however, is that psychological disarray that produces in him a “cognitive tightness” (183).

Similarly to *Classic*, Matt Shay finds himself cognitively adrift in the Pocket installation — a lone node in a network whose structure remains unknowable. For all of his ultimate insights about the Pocket and the parameters of the system that imprisons him, Matt’s paranoia initially leads him toward sensational conspiracy theories. As Jameson observes, paranoid conspiracy is a way of grappling with systemic totality, but it is hardly the most productive: “Conspiracy, one is tempted to say, is the poor person’s cognitive mapping in the postmodern age; it is the degraded figure of the total logic of late capital, a desperate attempt to represent the latter’s system, whose failure is marked by its slippage into sheer theme and content. Achieved cognitive mapping will be a matter of form” (“Cognitive Mapping”). The gap between Matt’s earlier and later observations in *Underworld* exemplifies Jameson’s important distinction between content and form. Early on, Matt’s paranoia leads him to speculate with his “bombhead” friend Eric Deming about rumored mutations and medical conditions that might have resulted from exposure to the U.S. government’s nuclear tests. Given the unavailability of evidence, these

conversations rehearse, in Jameson's sense, "sheer theme and content."²⁵ It is only when Matt begins to think about the more extensive network that enables such horrific possibilities, in a structural sense, that he begins to take into account "form." An understanding of structure allows him to pursue a mode of cognitive mapping that gives him a sense of his relation to the social totality and disentangles him, however imperfectly, from the linkages that he finds so problematic.

Unlike Jameson who relies more on the Marxist language of dialectics and utopia, DeLillo utilizes the language of networks and complexity, compromised as it is, to imagine linkages among seemingly disconnected things.²⁶ For all of his wariness, DeLillo is not categorically critical of networks. Indeed, in our contemporary era, it is meaningless to be either for or against networks. Utopian and dystopian representations of networks reflect human hopes and fears, but they ultimately miss the fact that the network form is not a formal inevitability so much

²⁵ *Underworld* features numerous other conspiracy theories. For example, Nick Shay and his fellow waste managers discuss a rumored ship that is not allowed entry into any port because of some terrible cargo. As Jesse Detwiler, a waste theorist, later puts it, "A ship carrying thousands of barrels of industrial waste. Or is it CIA heroin? I can believe this myself. You know why? Because it's easy to believe. We'd be stupid not to believe it. Knowing what we know." Sims replies by asking, "What do we know?" Detwiler responds, "That everything's connected" (289).

²⁶ DeLillo also draws parallel between Marxist "dialectics" and the contemporary language of "networks." In one section of *Underworld*, DeLillo describes a (fictionalized) lost Eisenstein film entitled *Untervelt* (*Underworld*). The depiction of Eisenstein's montage techniques, which are theoretically grounded in Marxist dialectics, share parallels with networks: "All Eisenstein wants you to see, in the end, are the contradictions of being. You look at the faces on the screen and you see the mutilated yearning, the inner divisions of people and systems, and how forces will clash and fasten, compelling the swerve from evenness that marks a thing lastingly" (444). The paradoxes that structure Eisenstein's films also inform the connections and disconnections that make up most networks.

as a figure of irreducible complexity that defines our historical moment. For all of their materiality, networks are also a paradigm through which we understand and organize the world. Interconnected structures can be constantly redefined, taking on numerous conceptual and metaphorical uses. As Nick Shay observes, communications networks, for example, allow new connections to be made:

You feel the contact points around you, the caress of linked grids that give you a sense of order and command. It's there in the warbling banks of phones, in the fax machines and photocopiers and all the oceanic logic stored in your computer. Bemoan technology all you want. It expands your self-esteem and connects you in your well-pressed suit to the things that slip through the world otherwise unperceived (89).

DeLillo certainly conveys an uneasiness about the network of American-style capitalism, but as his literary maneuvers demonstrate, he does not relinquish the network structure altogether. In *Underworld*, network problematics become complications of narrative, thematic, and aesthetic form. Networks, whether economic, communicational, or literary, come to connect us "to the things that slip through the world otherwise unperceived."

At their best, networks make new connections and richer understandings possible. In one passage, DeLillo takes an even more proactive position about the need to draw links among unlike things. A minor character, Dr. Lindblad, communicates this necessity when she tells a young Nick Shay, in 1953, "You have a history.... You're responsible to it. You're answerable. You're required to try to

make sense of it. You owe it your complete attention" (512). History's Gordian Knot, in other words, is no excuse for failing to connect the world's distributed dots.

Through his fiction, DeLillo himself takes responsibility for the history of American economic and political hegemony. The literary network of *Underworld* is not an analytic disentanglement of this paradoxical history. On the contrary it serves as a creative reentanglement that utilizes an alternative weave.

DeLillo's most significant reentanglement is perhaps his link between the supposed robustness of the global capitalist network of the twentieth century and the considerable "waste" that allegedly belongs outside of that system.²⁷ The novel compellingly connects the opulence of "Wall Street" to the poverty-stricken decay of the New York neighborhood known only as the "Wall." In distinction to the extraordinary wealth represented elsewhere in the novel, the Wall is an underworld of death and waste: "They were a society of indigents subsisting without heat, lights or water. They were nuclear families with toys and pets, junkies who roamed at night in dead men's Reeboks.... They were foragers and gatherers, can redeemers, the people who yawned through subway cars with paper cups" (242).²⁸ These

²⁷ DeLillo's interest in waste, in *Underworld*, is shared by fellow postmodern novelist Thomas Pynchon in such novels as *The Crying of Lot 49* and *Gravity's Rainbow*. I analyze Pynchon's fiction and the theme of waste more extensively in the fourth chapter of the dissertation.

²⁸ The ending of Eisenstein's (fictionalized) lost film *Unterwelt*, as described by Klara Sax, captures a similar type of indigence that is produced by a secret network: "These deformed faces, these were people

destitute “nuclear families” — the radioactive fallout of society — are not some unrelated other of global capital. They are the collateral damage or, more accurately, the direct byproduct of capitalist games and the networks that support them. As *Underworld* shows, American hegemony produces poverty through the exclusion, neglect, and disconnection of large portions of the domestic and global population from the fruits of economic gain. In this way, networks are often used to keep people out or relegate them to peripheral nodes that lay far from their most dynamic hubs. Connection itself proves to be just as dangerous as disconnection. Indeed, as DeLillo’s later fiction suggests, a tight interdependence threatens not only the so-called waste of society, but also the very system that generates it in the first place.

2.3 “All Reciprocally Vulnerable”: The Aesthetics of Interaction in *Cosmopolis*

In 2003, at a moment of comparatively diminished American economic and political power, DeLillo published his thirteenth novel, *Cosmopolis*. In the vein of many of its predecessors, this text explores the relationships among capitalism and political terror; finance and violence; first-world wealth and global poverty. Unlike DeLillo’s *Harper’s* article, “In the Ruins of the Future” (2001), which captures the

who existed outside nationality and strict historical context.... They were people persecuted and altered, this was their typology—they were an inconvenient secret of the society around them” (*Underworld* 443).

dread of an emerging mode of post-9/11 terrorism, *Cosmopolis* is set in a moment during which a full-fledged attack on U.S. hegemony was still unthinkable to most Americans. Nevertheless, during the final days of capitalist ecstasy depicted in the novel, before the stock-market bubble bursts and the events of September 11, 2001 begin to haunt the global imaginary, terror is already a way of life. It is the gross engorgement of the financial sector of the economy and the takeover of finance as the driving force of U.S.-style capitalism — not acts of terrorism on American soil — that produce a world driven by risk and fear.

While *Cosmopolis* lacks the international scope of *The Names* or even the national scope of *Underworld*, it nevertheless explores the global reach of American finance within the reduced confines of a single world urban center — the “cosmopolis” of New York City. *Cosmopolis* is set entirely on a single April day in the year 2000 as twenty-eight-year old billionaire and asset manager Eric Packer is chauffeured through New York City in his high-tech limo. During a day when the yen, which his company has borrowed in exorbitant amounts, is on the rise and causing Packer huge financial losses, the billionaire seems concerned merely with getting a haircut. DeLillo’s capitalist picaresque, at once burlesque and parodic in its

episodic peregrinations, leads Packer on a vain pilgrimage.²⁹ The ultra-capitalist protagonist travels through New York in a limo that operates like a late capitalist update of Sal Paradise and Dean Moriarty's car in Kerouac's *On the Road* (1957) — a vehicle which takes them down a road that “must eventually lead to the whole world” (231). On the way to his haircut, Packer is stalled by a rap musician's funeral, has conversations with several advisors (including a theory advisor well versed in Marxist philosophy), receives a rectal exam from his doctor, dines with his wife, engages in a few extra-marital sexual encounters, and survives a riotous free trade protest. By the end of this busy day, he is wasting excessive sums of money and giddily bringing about his financial, legal, and physical self-destruction.

Cosmopolis dwells on an association that has intrigued DeLillo since *Players*: the resonance between the figure of the American capitalist and the international terrorist. DeLillo's exploration of this overlap is both aesthetically precise and, especially given the subprime loan fiasco and significant recession of the last few

²⁹ *Cosmopolis* deviates from a straightforward genre identification. The novel's generic complexity is linked, in part, to the often remarked upon postmodern tendency toward cooption, pastiche, and recombination. Its sadistic tone, gratuitous violence, and uncanny aesthetic give it the feel of an urban gothic novel like Bret Easton Ellis's *American Psycho* (1991) with a cyber-capitalist twist. On the other hand, its episodic organization leads critic Jerry A. Varsava to contend that the novel transforms Eric Packer into “a kind of picaresque hero for a day” (83-4). Russell Scott Valentino offers yet another reading when he classifies *Cosmopolis* as part of a drastically different literary tradition, contending that Packer conforms to the “liberatory image” of “the rootless wanderer, the frontier hero in certain of its incarnations, the drifter,” transforming the text into “a virtual road novel” (148). In a completely different vein, Ken Tucker describes *Cosmopolis* as a prominent example of “recent-past futurism” and Jeffrey Paris similarly claims that DeLillo's vision of “hyper-capitalism” belongs to “the world of the cyberpunk dystopia” (181).

years, extraordinarily prescient. Billionaire Eric Packer's downward spiral demonstrates that just as lone terrorists can crash airplanes into prominent financial towers so wealthy capitalists can crash entire markets. In his essay on *Cosmopolis*, Jerry Varsava calls this phenomenon "rogue capitalism." As he writes, "In the unregulated global foreign currency market, no [significant] controls exist, and individual investors like Packer, or cabals of like-minded speculators, can indeed wreak havoc on given national currencies" (95). In an economic system that nurtures astronomical individual profits and promotes virtually unrestricted capitalism, terror is not simply an external physical threat; it is a condition produced by market forces. Packer, in all his "irrational exuberance" (to borrow a famous phrase used by Alan Greenspan in December 1996 to describe the expansion of the dot-com bubble) is a frightening personification of that internecine system and a reminder of its American foundation.³⁰

The ever-present fear of economic turbulence and market crashes that informs *Cosmopolis* is one of the effects of increased economic interconnection. Since the rise of massive financial networks in the late twentieth century, the relationality implied by connection has never been neutral in nature. National economies in the

³⁰ As this phrase suggests, finance develops a psychological and an aesthetic dimension. By no means anomalous, Greenspan's characterization exemplifies how capital flows are framed in psycho-aesthetic terms.

era of multinational capitalism are not merely interconnected; in a more profound and terrifying sense, both nations and corporations are intricately interdependent.³¹ It is precisely this interdependence that has led countless analysts, in recent years, to describe global investment banks such as Bear Stearns and Lehman Brothers as both “too big to fail” and “too interconnected to fail.” As the last few decades have demonstrated, gains and losses by American investors have a significant influence on global financial trends. During the 1980s, U.S. competition for capital in financial markets worldwide resulted in a temporary American economic surge. Theorist Giovanni Arrighi explains, however, that this domestic swelling also bore the “unintended consequences” of disturbing “the global political economy” and of increasing the dependence of American power “on the savings, capital, and credit of foreign investors and governments” (9). In the late 1990s, the U.S. economic revival, once again, happened at the expense of Japan and Western Europe (Arrighi 111). Other countries have also had significant influences on the world economy,

³¹ *The Names* deals in detail with the dependency of Third World countries on U.S. finance. The terror evoked by this dependency becomes the topic of a conversation between Kathryn and James Axton: “Terror. This is the subject she chose. In Europe they attack their own institutions, their police, journalists, industrialists, judges, academics, legislators. In the Middle East they attack Americans. What does it mean? She wanted to know if the risk analyst had an opinion.” James replies, “Bank loans, arms credits, goods, technology. Technicians are the infiltrators of ancient societies. They speak a secret language. They bring new kinds of death with them. New uses for death. New ways to think about death. All the banking and technology and oil money create an uneasy flow through the region, a complex set of dependencies and fears. Everyone is there, of course. Not just Americans. They’re all there. But the others lack a certain mythical quality that terrorists find attractive” (*The Names* 114).

suggesting an unprecedentedly tight global interconnectedness in the late twentieth and early twenty-first centuries.³²

In intricately interdependent financial webs, millions or billions of people suffer from the whims of a handful of self-serving investors. In *Cosmopolis*, Eric Packer is precisely such an investor. “He was so leveraged,” DeLillo writes, “his firm’s portfolio large and sprawling, linked crucially to the affairs of so many key institutions, all reciprocally vulnerable, that the whole system was in danger” (116). Indeed, a great part of Packer’s perverse glee — a frenzied energy that infuses the aesthetic of the entire novel — emanates from the belief that his wasteful expenditure and epic loss have global consequences. In other words, the plunge in Packer’s *net worth* disrupts a larger capitalist *network*. Packer’s decisions are capable of setting ripples across a “large and sprawling” terrain and crashing “the whole system.” His power derives from a vast totality of distributed and interconnected institutions that are “all reciprocally vulnerable.” In such a network, Packer’s willful loss becomes a violent terrorist act turned outward on the world. He proudly proclaims this cold *modus operandi* to his mistress — practically channeling Patrick Bateman, the protagonist of Brett Easton Ellis’s 1991 novel *American Psycho* — “The logical extension of business is murder” (113).

³² The Mexican peso crisis of 1994-95, for example, was a decisive demonstration that the drop of a single currency can shake international financial stability in general.

As with the other DeLillo novels analyzed in this chapter, *Cosmopolis* employs a network language and aesthetic to explore American-driven global capitalism and its cognitive foundations. Benno Levin, Eric Packer's schizophrenic former worker and would-be assassin, reflects extensively on the nature of interconnection. In excerpts from his journal, "The Confessions of Benno Levin," which make up two first-person interludes in a novel that is otherwise a third-person account of Packer's day, he records his eclectic ramblings. In one confessional interlude, Levin produces two seemingly paradoxical statements. First, he notes:

But how can you make words out of sounds? These are two separate systems that we miserably try to link. This resembles something he would say. I must be mouthing his words again. Because I'm sure [Packer] said it once, walking past my workstation to the person who was with him, in reference to such and such. Mirrors and images. Or sex and love. These are two separate systems that we miserably try to link (55).

Levin initially describes the linkage of "separate systems" as a miserable tendency — an operation that belongs to Packer's insane capitalist logic. A few pages later, however, he complicates this earlier statement. Levin muses, "World is supposed to mean something that's self-contained. But nothing is self-contained. Everything enters something else" (60). He adds, "In the world today everything is shared. What kind of misery is it that can't be shared?" (60). The very interplay between these inverse theses — an interaction that is at once schizophrenic and dialectical — resembles Matt Shay's cognitive dissonance in *Underworld*. Under the ideological

umbrella of American capitalism, isolation and connection; severance and linkage; self-containment and interpenetration coexist in numerous paradoxical configurations.

Levin's philosophical struggle with the linkages that make up a global totality leads him to seek a language that might better describe these contemporary structures. Eventually, he foregrounds the key concept of a "complex," which links the pathological, affective, and structural dimensions of this worldwide network. Upon meeting Packer at the end of the novel, Levin offers the following observation — a diagnosis that carries psychological, political, and economic implications — to the crazed capitalist: "I have my syndromes, you have your complex. Icarus falling" (202). According to this formulation, Packer suffers from a "complex": a system of interrelated ideas, feelings, and impulses that give rise to his dangerous behavioral pattern. A complex, however, can be both a pathological formation and a systemic assemblage. DeLillo's oxymoronic coupling of the compound "complex" with the solipsistic figure of "Icarus" renders the inseparability of the individual capitalist and global networks of capital. In other words, an individual cannot generate meaning without establishing a relation to totality, but a totality is equally unthinkable without an understanding of the mentality and motivation of the individuals that comprise it. More concretely, in Levin's phrasing, the "complex" of

“Icarus falling” suggests that the American terror complex is characterized both by a delusion of limitless omnipotence and a fantasy of self-destruction.

Cosmopolis traffics in what Packer’s advisor Vija Kinski calls “an aesthetics of interaction”: a polysemous slogan that she uses to capture the “affinity” between political terror and international finance that founds so-called free market ideology (86). At a global level, the “interaction” that Kinski theorizes is always asymmetrical. Unlike the proportional Cold War standoff between the superpowers, contemporary capitalism is structurally lopsided. While economic networks are comprised of numerous nodes, those points do not stand in symmetrical relation to each other. Given his epic self-absorption, Packer only begins to reflect on the concept of asymmetry when, during a daily rectal exam that takes place in his limo, Doctor Ingram discovers that Eric’s prostate is asymmetrical. Upon assimilating this information, Packer finds this imbalance both fascinating and frightening:

But there was something about the idea of asymmetry. It was intriguing in the world outside the body, a counterforce to balance and calm, the riddling little twist, subatomic, that made creation happen. There was the serpentine word itself, slightly off kilter, with the single additional letter that changes everything. But when he removed the word from its cosmological register and applied it to the body of a male mammal, his body, he began to feel pale and spooked. He felt a certain perverse reverence toward the word.... He was haunted to the point of superstitious silence (53).

In this passage, Packer finds asymmetry intriguing as a theoretical concept but, as soon as the word is applied to a physiological and material reality, he grows “pale

and spooked.” Upon taking a self-reflexive turn, the otherwise confident capitalist becomes haunted by the word and its concrete referent.

Unsurprisingly, Packer is incapable of connecting his physical unevenness to a global asymmetry of wealth that has caused his financial downfall. In the end, Benno Levin makes this connection for him. “But you forgot something along the way,” Levin says. “The importance of the lopsided, the thing that’s skewed a little. You were looking for balance, beautiful balance, equal parts, equal sides.... But you should have been tracking the yen in its tics and quirks. The little quirk. The misshape” (200). The “lopsided” capital flows that Levin describes produce a more troubling inequality in the distribution of global wealth. It is this asymmetry that leads Marxist theorist David Harvey to propose a shift from the language of “globalization” that has dominated discussions about American-driven capitalism since the 1970s, to a language of “uneven geographical development” (*Spaces of Hope* 68). Treating capitalism as a seamless global network, though accurate in a figurative sense, conceals a long and messy history that includes slavery, unfair labor practices, global inequality, and large-scale opposition to capital.

The unsettling effect of unevenness in *Cosmopolis* derives precisely from the concept’s historical and social connotations. While asymmetry is a geometric measure of non-correspondence, its spatial dimension entails an equally important

temporal one. Networks may be spatial figures, but as DeLillo insists in all of his novels, they are still accessible through memory and formed through history. While *Underworld* serves as a literary history of the network age from the 1950s through the present, *Cosmopolis* offers a more theoretical commentary on history in the era of multinational capitalism. In a literal sense, history is evacuated from the pages of the novel. Since the dominant perspective is that of Eric Packer, the text is itself largely ahistorical. Packer's sadism and violence are justified precisely through a substitution of future-oriented risk management for historical memory. As the capitalist explains, "I've never liked thinking back, going back in time, reviewing the day or the week or the life. To crush and gut. To eviscerate. Power works best when there's no memory attached" (184). Packer's finance work entails the management of risk — a task that draws on abstract models that favor a programmatic future to a rich past. His form of power works best without the heavy attachment of memory.

For all of Packer's rejections of history, *Cosmopolis* serves as a meta-historical reflection on capitalism's denial of the past and the violent injustices that this ahistoricity continues to legitimate. If justice entails putting the time that is off its hinges back on its central rotation then *Cosmopolis* never quite achieves justice. On the other hand, if justice requires, as philosopher Jacques Derrida has observed, for one to "rearticulate *as must be* the disjointure of the present time," then the novel's

fearless diagnosis of contemporary financial networks unquestionably participates in the just project of historicizing the present (*Specters of Marx* 25). In DeLillo's novels more generally, formal manipulation of temporality suggests an even more nuanced critique of capitalism's deteriorating memory. The insanity of capitalist networks gives rise repeatedly to an equally mad narrative temporality.

In different ways, DeLillo's books challenge and even reverse the linear historical progress narrative that promotes endless accumulation. For example, in *Underworld*, the narrative hops between historical moments, and generally unfolds backwards from the contemporary moment to the 1950s. This type of reversal is also at play in *Cosmopolis*. While Eric Packer's story takes place in a chronologically unfolding present, Benno Levin's confessions invert this mode of narrative development that is equally proper to the form of capitalism and the realist novel. The first Levin interlude is labeled "night," whereas the second is marked "morning" and takes place, sequentially, before the first. In both *Underworld* and *Cosmopolis*, DeLillo defamiliarizes history in order to open it up to analysis. Through formal operations, he reverses finance capital's unidirectional rush into the future. In place of capitalist networks that colonize time and space, DeLillo's novelistic

networks generate alternative histories and different aesthetic nodes that help readers think differently about the systemic totalities that constitute them.³³

For DeLillo, power, violence, and terror are the upshots of an ahistorical economic system. In the introductory paragraph of his essay “The Ruins of the Future,” which reads like a passage taken straight from one of Kinski’s monologues in *Cosmopolis*, he writes:

In the past decade the surge of capital markets has dominated discourse and shaped global consciousness. Multinational corporations have come to seem more vital and influential than governments. The dramatic climb of the Dow and the speed of the internet summoned us all to live permanently in the future, in the utopian glow of cyber-capital, because there is no memory there and this is where markets are uncontrolled and investment potential has no limit. All this changed on September 11. Today, again, the world narrative belongs to terrorists.

DeLillo expands on the nature of this new narrative by adding, “The terrorists of September 11 want to bring back the past” (“The Ruins of the Future”). These

³³ As in *Underworld*, the capitalist network represents the contemporary figure of totality in *Cosmopolis*. DeLillo’s vision of capital’s totality comes across most clearly in a passage where Packer encounters a raging mob that is protesting the expansion of global free trade. In this scene, Kinski channels a line of thought that is popular both in standard pro-globalization arguments and in certain anti-globalization strands of radical poststructuralist theory, “But these are not the grave-diggers. This is the free market itself. These people are a fantasy generated by the market. They don’t exist outside the market. There is nowhere they can go to be on the outside. There is no outside” (*Cosmopolis* 90). As the protestors assault Packer’s limo, Kinski announces, “the market culture is total.” In fact, for her, the protestors exist only to “give it energy and definition” and exist “to invigorate and perpetuate the system” (90). Demonstrating the accuracy of Kinski’s reading, Packer feels himself connected to the protestors in their moment of violence. As they destroy his limo, he “thought he’d like to be out there, mangling and smashing” (92). As he later ruminates, incorporating Kinski’s worldview, “There was a shadow of transaction between the demonstrators and the state. The protest was a form of systemic hygiene, purging and lubricating. It attested again, for the ten thousandth time, to the market culture’s innovative brilliance, its ability to shape itself to its own flexible ends, absorbing everything around it” (99). Capitalism’s totality here comes from its capacity to absorb any resistance to it.

terrorist attacks represented the incursion of the past into the perpetual future of capitalist markets. The events of September 11 transposed the ruins of global dystopia onto an American zone illuminated by “the utopian glow of cyber-capital.” On this day, the thrilling abstraction of finance capital became interwoven, once again, with a more sobering historical materiality and a “world narrative” that did not acknowledge American omnipotence.

DeLillo’s novels are not coextensive with the terrorist narrative he identifies, but they represent a continuation of this story by other means. *Cosmopolis* constructs a world narrative about American finance that foregrounds the threats that accompany interconnection and the pitfalls of an overextended network. The novel’s ecstatic hyperbole, which plays out in Packer’s rabid and unyielding self-destruction, produces a representation of capitalism that is recognizable in its excess. As recent years have demonstrated, literary resistance and mass protest are not the only routes to putting cracks in the foundation of American capitalism. For all of its resilience and adaptability, this system’s architecture is susceptible to the insatiable overextension that accompanies endless accumulation, the unpredictability of its interdependencies, and its own tendency toward implosive crises.³⁴ The severance

³⁴ In his analysis of *Cosmopolis* in the *American Book Review*, David Cowart represents this phenomenon as a naturalistic process. In his characterization of DeLillo’s post-9/11 worldview, he writes, “the [WTC] towers and what they stand for are brought down less by ideological conflict than by a deadly combination of

of connections between capital exchange and human interactions that began in the era of high finance in the 1970s encouraged irresponsibility that affected the worldwide economic network. The “trickle-down economics” and rapid deregulation of the 1980s failed in the long term. The rich certainly grew richer through the final years of the twentieth century and early moments of the twenty-first, but instead of strengthening the overall economy, these financiers eventually crashed the system.

Cosmopolis demonstrates that the future-oriented capitalist system that ignores history and stifles truly imaginative thought is not sustainable. In an early scene in the novel, Packer’s currency analyst, Michael Chin, warns him that the borrowing of the yen in enormous quantities will lead to a loss of capital from which the company will not be able to bounce back. “Eric, come on,” he pleads. “We are speculating into the void” (21). The polysemous concept of “speculating into the void” applies equally to Packer’s self-destructive investment in the yen as it does to the task of a writer and thinker such as DeLillo himself. At its best, literature speculates about and into the void. It represents other ways of knowing. Today, individuals interpellated by capitalism face an obstructive screen of unknowing that

overreaching and simple Spenglerian entropy: great civilizations eventually overextend themselves and perish.”

is the effect of an information overflow and the intimidating totality of global networks. As Kinski puts it, "The glow of the screens. I love the screens. The glow of cyber-capital. So radiant and seductive. I understand none of it" (78).

Cosmopolis refuses the seductions of a life, however "radiant," that impedes understanding. If a network totality can be an ensnaring net that limits us to certain parameters, it can also be a model for a more symmetrically interconnected world. Since we are indeed "all reciprocally vulnerable" within the contemporary world order, it becomes increasingly urgent for each of us to consider the relationship between individual interests and the interests of those who are affected, directly and indirectly, by personal choices (116). If Levin is correct and "everything enters something else," network thought is a necessary prerequisite for achieving a less precarious economic order and a more just world (60).

2.4 "Crowded Out": Capitalism's Spatial Crisis and the Era of the "Worldwind"

DeLillo's 2007 novel *Falling Man* confronts the social effects rather than the causes of the type of rogue finance depicted in *Cosmopolis*. Instead of exploring the height of U.S. financial power, this novel represents the disastrous events of September 11 and the subsequent decline of American hegemony. The book foregrounds these issues in terms of space: a dimension that is crucial to the operation of the global capitalist network. Early in the novel, a young Muslim man

named Hammad grapples with precisely this problem. Long before he participates in the airborne attack on the World Trade Center towers, he experiences a sense of historical and spatial paralysis: “There was a feeling of lost history. They were too long in isolation. This is what they talked about, being crowded out by other cultures, other futures, the all-enfolding will of capital markets and foreign policies” (*Falling Man* 80). His decision to strike against the far enemy of the United States stems from his feeling of being “crowded out” by the culture, future, and will of “capital markets and foreign policies.” America’s hegemonic crisis and diminished power, after the 9/11 attacks, takes a similarly spatial aspect in the novel. Years after the event, European art dealer Martin Ridnour notes, “I don’t know this America anymore. I don’t recognize it.... There’s an empty space where America used to be” (193).

DeLillo’s fiction teaches us numerous lessons about the space-time of American capitalist networks, the topography of uneven geographical developments, and the study of American literature at the start of the twenty-first century. Over the last four decades, his novels have mapped American political and economic development. His spatial concerns address a core problematic of capitalism that predates its more recent American form. In David Harvey’s terms, capitalism has historically thrived through a “production of space” that he calls a

“spatial fix.” Capitalism requires a grounding “fix” in order to enable expansion from a home base, but it also encounters a “fix,” a dilemma or crisis, at those moments that overaccumulation requires new territory for reinvestment. Harvey reads the spatial fix as “the history of creative destruction written into the landscape of the actual historical geography of capital accumulation” (*The New Imperialism* 101).

The recent historical trajectory of this crisis is reflected in the changing spatial parameters of those DeLillo novels most concerned with the American capitalist network. In 1982, *The Names* tracks American capital and investments around the entire globe by focusing on James Axton and his fellow world travelers. In 1997, DeLillo’s encyclopedic novel *Underworld* reduces the scope of this exploration to the territorial borders of the United States. In 2003, *Cosmopolis* packs its action into the space of a single city that is traversed by Eric Packer’s limousine. Finally, 2007’s *Falling Man*, limits the analysis of global systems to a devastated New York street (“It was not a street anymore but a world, a time and space of falling ash and near night”) that haunts the even more compact space of Keith Neudecker’s traumatized mind (*Falling Man* 3). Each novel dramatizes America’s escalating spatial fix and registers, if only at its periphery, the effects of uneven geographical development. In its varied representations, DeLillo’s fiction grapples with the predicament of

capitalism's global reduction of scale. It suggests that even as global networks expand, more intricate interconnection causes the space of the world to shrink.

The multi-part epilogue of *Underworld* (appropriately entitled "Das Kapital") offers one of DeLillo's most compelling reflections on the changing space of capitalism. In a conversation with Russian capitalist entrepreneur Viktor Maltsev and his coworker Brian Glassic, waste manager Nick Shay admits, "I thought leaders of nations used to dream of vast land empires — expansion, annexation, troop movements, armored units driving in dusty juggernauts over the plains, the forced march of language and appetite, the digging of mass graves. They wanted to extend their shadows across the territories" (*Underworld* 787). As opposed to the desire for more space, Glassic explains that, in the contemporary moment, those in power "want computer chips" (788). Maltsev agrees with this assessment ("Yes, it's true that geography has moved inward and smallward") albeit with a key qualification: "But we still have mass graves, I think" (788). In other words, the decline of traditional imperialism and its economic system of monopoly capitalism does not eliminate violence and the occasion for "mass graves." The old system has merely been replaced with a new model of power and spatial scheme: the global network of multinational capitalism.

The emergence of the network era is marked poignantly in the final pages of *Underworld's* epilogue. As the novel concludes, a young homeless girl named Esmeralda is violently raped and murdered in the impoverished "Wall" neighborhood in which she resides. Shortly after her death, people begin to report a vision of the girl's face on a highway billboard. Crowds gather to witness the image, which appears whenever the light of a passing train is cast over it. Shortly after its discovery, however, the billboard is painted over. In place of the miraculous face of the murdered girl, a white sheet covers the board with two words: "*Space Available*" (824). This displacement offers a striking demonstration of capitalism's tendency to obscure any haunting signs of the poverty it generates through its production of wealth that is restricted to a small portion of the global population. As the tabula rasa of the billboard announces, capitalism can cover up any crisis and convert any tragedy into an open "space" that is "available" for further development and financial conquest.

Notably, *Underworld* ends not with vacant space, but with a relational topology of interconnection. After Esmeralda's murder, Sister Edgar, who has a strong reaction to the girl's terrible fate, also dies. In the moment of her death, the nun has a vision that takes her beyond space and territory to a realm of endless links: "There is no space or time out here, or in here, or wherever she is. There are

only connections. Everything is connected. All human knowledge gathered and linked, hyperlinked, this site leading to that, this fact referenced to that, a keystroke, a mouse-click, a password — world without end, amen” (825). In place of the religious experience of spiritual transcendence or the more secular ecstasy of capitalist spatial expansion, Edgar is overcome by overwhelming totality of relationality:

But she is in cyberspace, not heaven, and she feels the grip of systems. This is why she’s so uneasy. There is a presence here, a thing implied, something vast and bright. She senses the paranoia of the web, the net. There’s the perennial threat of virus of course. Sister knows all about contaminations and the protective measures they require. This is different—it’s a glow, a lustrous rushing force that seems to flow from a billion distant net nodes (825).

She feels wonder in response to the “lustrous rushing force” of the “net,” but there is also an anxiety that accompanies the “grip of systems.” She notes that the distribution of the network that constitutes the technological, social, political, and economic aspects of the world has the capacity to dissolve human agency and disconnect people from each other. “And Sister begins to sense the byshadows that stretch from the awe of a central event. How the intersecting systems help pull us apart, leaving us vague, drained, docile, soft in our inner discourse, willing to be shaped, to be overwhelmed—easy retreats, half beliefs” (*Underworld* 826).

Even with the reduction of traditional space that accompanies network topology, nothing short of the entire world is at stake. DeLillo is an American writer,

but his recurring subject is the effect of American finance culture on the world. His fiction challenges the American world narrative of “globalization,” which has been dominant since the 1970s. His work contests the destructive desire for global supremacy — the violent chaos that Axton’s son Tap captures through the inadvertent neologism “worldwind” in *The Names*. All of DeLillo’s novels suggest that the world should not be treated as a figure for evading the responsibility of global interconnection. Early in *The Names*, James Axton celebrates such evasiveness when he imagines himself as “a perennial tourist.” He explains, “There was something agreeable about this. To be a tourist is to escape accountability. Errors and failings don’t cling to you the way they do back home. You’re able to drift across continents and languages, suspending the operation of sound thought.” (43).

DeLillo does not himself subscribe to Axton’s form of romantic escapism. Instead of a transitory mode of world tourism, the writer advocates a self-reflexive global consciousness that dwells on the contradictions and asymmetries inherent in American-style capitalism.³⁵ He elucidates this point in a 1982 *New York Times*

³⁵ In fact, DeLillo imagines the world itself as a self-reflexive entity from which escape is no longer possible. In *The Names*, he writes, “The world has become self-referring. You know this. This thing has seeped into the texture of the world. The world for thousands of years was our escape, was our refuge. Men hid from themselves in the world. We hid from God or death. The world was where we lived, the self was where we went mad and died. But now the world has made a self of its own. Why, how, never mind. What happens to us now that the world has a self? How do we say the simplest thing without falling into a trap? Where do we go, how do we live, who do we believe? This is my vision of a self-referring world, a world in which there is no escape” (297).

interview conducted after the release of *The Names*. In this conversation, DeLillo mentions the inescapability of the paradoxes that accompany global capitalism, especially the defamiliarizing effect of living abroad on his identity as an American: “You find yourself mixed up in world politics in more subtle ways than you’re accustomed to. On the one hand, you’re aware of America’s blundering in country after country. And on the other hand, you’re aware of the way in which people in other countries have created the myth of America, of the way in which they use America to relieve their own fears and guilt” (Harris).

Since the early 1980s of DeLillo’s *The Names*, American global hegemony has waned. After the devastating 9/11 terrorist attacks, the overextension of U.S. military forces in Iraq, the domestic fiasco of Hurricane Katrina, and the recent economic recession, American identity has assumed a more precarious form. These catastrophic events have contributed to what Wai Chee Dimock calls the “Third-Worlding of a superpower” (Dimock and Buell 2). As he explains, more than ever before, “the nation is revealed to be what it is: an epiphenomenon, literally a superficial construct, a set of erasable lines on the face of the earth” (1). The realization of American vulnerability and interdependence with other nations has political and economic consequences. It also influences the nature of literary analysis and complicates the disciplinary configuration of “American studies.”

American literature in the era of international networks and global capital flows cannot be understood outside of a broader context theorized in the study of “world” literature. Thinking beyond a national or even a standard trans-Atlantic frame is vital to understanding the uneven developments and asymmetrical interdependencies produced by American dominance. As Jameson contends in “Third-World Literature in the Era of Multinational Capitalism,” “we Americans, we masters of the world” are impoverished by our inability to see the connections that burgeon among world cultures. He argues, “The view from the top is epistemologically crippling, and reduces its subjects to the illusions of a host of fragmented subjectivities, to the poverty of the individual experience of isolated monads, to dying individual bodies without collective pasts or futures bereft of any possibility of grasping the social totality” (85).³⁶ A more expansive literary worldliness, of genuine cosmopolitanism, that attends to the individual’s relation to “social totality” and its financial networks can begin to address this myopia.

³⁶ In *Underworld*, DeLillo uses shifts in narrative perspective to comment on the reliance of the First-World subject on the Third-World other. The narrative, which follows a cast of primarily white, privileged characters, is interrupted several times by the story of an African American character, Manx Martin, who attempts to sell his son’s baseball in 1951. Structurally, the relative poverty of Martin is necessary to sustain the lifestyle of more privileged characters in the novel such as Nick Shay. In one passage of the novel, Nick demonstrates the interaction between the “first person” and “third person” in a private game he plays that doubles as a description of the relationship between Nick and Manx at the overarching level of the novel: “He was spying on himself. The third person watches the first person. The ‘he’ spies on the ‘I.’ The ‘he’ knows things the ‘I’ can’t bear to think about.... The third person sends his nobody to kill the first person’s somebody” (*Underworld* 119).

Needless to say, aesthetic experimentation such as that which makes up DeLillo's fiction cannot eliminate inequality in the United States and around the world. Nevertheless, it can help readers understand what it means to live and act from within a network totality.

Chapter 3: Synful Systems: Computer Networks and Protocol Perspectives in Cyberpunk

She'd caught some, she decided: terror. Right here in her hand, in Starbucks, afraid to trust her own phone and the net stretching out from it, strung through those creepy fake trees you saw from highways here, the cellular towers disguised with grotesque faux foliage, Cubist fronds, Art Deco conifers, a thin forest supporting an invisible grid.... The net of telephony, all digitized, and all, she had to suppose, listened to.... Somewhere, she had to believe, such things were all too real.

— William Gibson, *Spook Country*

In the far future of Frederic Brown's 1954 science fiction short story "Answer," two characters turn a "switch that would connect, all at once, all of the monster computing machines of all the populated planets in the universe — ninety-six billion planets — into the supercircuit that would connect them all into the one supercalculator, one cybernetics machine that would combine all the knowledge of all the galaxies" (36). Upon activating this unprecedentedly powerful network, one of the protagonists asks the supercalculator "a question that no single cybernetics machine has been able to answer": "Is there a God?" Ominously, at the climax of the tale, the machine network replies, "Yes, *now* there is a God," kills the interrogator, and severs all human access to its database (Brown 37, emphasis mine). During the period extending from the birth of cybernetics in the 1940s to the construction of the U.S. military's ARPANET in the 1960s to the commercialization of the Internet in the 1980s, the transformation of global communication gave rise to the type of fear

expressed in Brown's story. This chapter tells the story of that technological development and its socio-cultural reverberations since the 1980s.

The history of computing and informatics extends back to the seventeenth-century mathematical theories of Gottfried Leibnitz, the nineteenth-century engineering schemes of Charles Babbage, and the mid-twentieth-century cryptographic code-breaking efforts of the Allied powers. Nevertheless, the research program that most directly gave rise to today's information networks began in the years following World War II. N. Katherine Hayles, in her work on the interdisciplinary cybernetics research that seized the postwar era, demonstrates that networks became the dominant spatial configuration and key object of cultural fascination in the 1980s.¹ Similarly, Alan Liu argues that the production of knowledge and the organization of information adopted a "networking" model in the years following 1982 (*The Laws of Cool*). Although Hayles and Liu differ

¹ In *How We Became Posthuman*, Hayles introduces a tripartite genealogical framework that proves useful in historicizing the contemporary computer network. In each of her three major periods, Hayles identifies a dominant paradigm of scientific study that laid the groundwork for the military, commercial, and cultural fascination with computer networks in the late twentieth century. In the first era of computing, from 1945 to 1960, "homeostasis" — the maintenance of mechanical stability through feedback loops — serves as the central conceptual principle. In the second era, from 1960 to 1980, "reflexivity" — the inclusion of an observer in the system being observed — provides cybernetics with its primary focus. Finally, from 1980 to the present, "virtuality" and "emergence" — the capacity of artificial systems to evolve or transform themselves — has structured conversations about an information society. It is in this third period that networks become a dominant model. Hayles continues her analysis of networks in *My Mother Was a Computer: Digital Subjects and Literary Texts*.

regarding the particular parameters of the pre-networking era, they both notably situate the beginning of the computer network paradigm in the early 1980s.

The computer networks that came to dominate the American technological and cultural landscape in the late twentieth century owe their ascendance to the development of the Internet. Tiziana Terranova contends that the Internet is a “network of networks” or an “internetwork” that is integral to the overall understanding of network culture (41). In technological terms, the Internet is a web of interconnected computer networks that relies on packet switching technology: a communications method that transmits discrete “packets” of data between a distributed set of nodes and terminals. In cultural terms, the Internet serves as a combinatory medium that standardizes and absorbs other media, including print texts, audio recordings, films, television, and videogames.² As both a technological and media innovation, the Internet’s influence extends to virtually every area of contemporary existence. From friendly social communications to the more inimical applications imagined by terrorist organizations, this overarching network has transformed human life in unprecedented ways.

² The argument that the Internet combines previous mediums is a common contention in new media studies. For example, Friedrich Kittler argues that with optical fiber networks, “the previously separate media of television, radio, telephone, and mail will become a single medium, standardized according to transmission frequency and bit format” (101). Similarly, Lev Manovich argues that unlike the printing press or photography, “the computer media revolution affects all stages of communication, including acquisition, manipulation, storage, and distribution; it also affects all types of media — texts, still images, moving images, sound, and spatial constructions” (19).

While the American-developed and globally-adopted Internet has grown into a powerful communication system that underpins the daily life of millions, its origins stretch back to military research initiatives that began with the end of World War II.³ Mathematician Norbert Wiener contends that the birth of cybernetics and the postwar information society would not have been possible without the war's acceleration of Western technological development (160). "One of the few things gained from the great conflict," he explains, "was the rapid development of invention, under the stimulus of necessity and the unlimited employment of money; and above all, the new blood called in to industrial research" (148). In this passage, Wiener represents the bloodiest conflict of the twentieth century as a tool of capitalist innovation: an event that brings in "new blood" to transform creative destruction into a more promising mode of destructive creativity.⁴

Following the cryptographic and weapons production efforts of World War II, which contributed to an Allied victory in both the European and Pacific theaters, the wartime research apparatus was not disbanded. It was simply reorganized. In the late 1940s, the research scientists once responsible for defeating the Axis powers

³ Even before the Japanese surrender on August 15, 1945, Vannevar Bush, the director of the Office of Scientific Research and Development, published the influential paper "As We May Think." As the war died down, this piece detailed the vision for the "memex" (a portmanteau word for "memory extender") that would serve as a hypertextual computer system.

⁴ The term "creative destruction" comes from Joseph Schumpeter's work. For an extended discussion of this concept, see Alan Liu's *The Laws of Cool* (322).

now sought to apply the speed and organization of military innovation to peacetime development. Along with the weapons research accelerated by the rise of the Soviet Union in the early years of the Cold War, the production of new information technologies became a primary objective that could be understood as a natural extension of the war's focus on military intelligence. The Internet was one of the resulting developments.

As the frequently cited story goes, the technology that transformed into the World Wide Web application — the global information network that popularized the Internet — began in 1969 as a limited military packet switching network called ARPANET. Constructed by the Defense Advanced Research Projects Agency (DARPA) in the 1960s, this communicational system was initially intended to promote decentralization in order to help the U.S. survive a Soviet nuclear attack.⁵ Thus, the establishment of the ARPANET military net was a significant step in the direction of full-fledged Cold War information warfare. In 1969, following from two decades of theories, the U.S. Department of Defense activated the first ARPANET nodes. Subsequently, in 1973, computer scientists developed a new technical protocol (TCP/IP) that replaced a closed network model with a flexible and open architecture. For the first time, this protocol interconnected radically different

⁵ For more on the early history of the Internet see: Arthur Norberg, Judy E. O'Neill, and Kerry J. Freedman's *Transforming Computer Technology*.

technologies, creating a much more seamless network. In 1983, the name “Internet” became popular, quickly replacing the military’s label of ARPANET. A few years later, in 1987, the complete military-to-commercial switchover had taken place (Aarseth 98). In 1989, Tim Berners-Lee wrote the initial proposal for the World Wide Web that proved to be the basis for the popular Internet that emerged in the 1990s (Berners-Lee and Fischetti 1). Through this history, the Internet became a system that would determine not only the future of warfare, but also the nature of business and rhythm of everyday life.⁶

The emergence of the Internet has inspired half a century of commentary by cyberneticists, network scientists, and media theorists. The cultural anxieties, political investments, and changes in human subjectivity that have accompanied the development of global computer networks have also been explored in numerous fictional, filmic, and media works. In a host of literary texts, technological webs once

⁶ Despite the commercialization of the Internet — a rapid process that has continued to the present day — the interest in information warfare and cyber defense that motivated the system’s original development has persisted. If, during the early Cold War, the focus on information and networks was one of many approaches, it has since burgeoned into a central strategic paradigm of military planning. In other words, corporate involvement and the commercial viability of the Internet have compounded rather than replaced the military’s interest in networks and distributed computing. Arguably, during the final decade of the Cold War, in the 1980s, the dominant doctrine of Mutually Assured Destruction (MAD) was transformed through the theorization and infrastructure development of an emerging communications war: what Paul Virilio calls “nuclear deterrence by other means” (*The Virilio Reader* 170). After the Cold War, the information war became an even more central part of military strategy. Contemporary documents such as the U.S. Department of Defense’s “Information Operations Roadmap” (a comprehensive 2003 plan that would reorganize military strategy along network lines) and ongoing projects such as the Global Information Grid (an in-development intra-military Internet) suggest that the history of networks has not seen a simple shift from military uses to social applications.

employed for computing and code breaking have taken on significant cultural significance. Contemporary science fiction, in particular, has spent several decades aestheticizing fears about computer networks. From Cold War speculative fictions to information age fantasies, this genre has grappled with both the pitfalls and opportunities that accompany technologies of interconnection. As I suggest in this chapter, cyberpunk literature in particular has both reproduced and exposed the cultural anxieties that accompany interconnection. The most imaginative exemplars of this computer-age subgenre have also used network metaphors to generate more constructive visions of community in recent decades, positing alternatives to both the technological and social structures that dominate the era of multinational capitalism.

3.1 Cyberphobia and Network Emergence

As long as they have been part of the technological and cultural imaginary, computer networks have been terror-inducing structures. Of course, libertarian internet enthusiasts and network scientists alike have long treated these networks as benign developments and signs of technological advancement. To those born and raised in the internet era, computer networks have not been perceived primarily as objects of fear. Since the 1980s, marketing campaigns have sought to produce an image of networks as benign technologies capable of ensuring more enjoyable

leisure activities and easier work lives. Networks, in this sense, exist in order to ease global communications and connect people separated by long distances.

Nevertheless, these corporate reassurances and branding battles, which have given rise to a vision of technological utopia that is as hyperbolic as its dystopian counterpart, only underscore an underlying “cyberphobia” that has accompanied the rapid postwar integration of information technologies into daily life.⁷ Before analyzing some contemporary fictions and films that seek to make sense of computer networks, it is necessary to consider what it is that makes the contemporary network structure, and computer webs more specifically, so terrifying.

Even beyond the particular technological forms it takes in the computer era, the contemporary network structure, in a generalized form, evokes a new brand of terror. The network is not an external threat that infiltrates and disrupts the existing order. Instead, in the era of global interconnectivity, ubiquitous network architecture introduces the more insidious menace of transformation and destabilization from within. While the speed, efficiency, openness, and extensibility that accompany interconnection are a network’s greatest assets, they also represent serious

⁷ I draw the term “cyberphobia” from Martin Kevorkian’s *Color Monitors: The Black Face of Technology in America* (2006).

liabilities.⁸ Barabási makes this point when he observes that while a network's decentralization allows for unprecedented resilience, a high degree of interconnection also risks massive breakdowns in systems infrastructures, as was exemplified by the colossal Western U.S. power failure in the summer of 1996 (109-111).⁹ Networks risk not only widespread malfunction, but also disruption by hostile agents who may participate in those systems and undermine them from the inside. For example, numerous improvements in legal and security protocols since the 1980s suggest a fear of computer network infiltration by hackers and cyber-terrorists.¹⁰ Indeed, such examples of network breakdowns are far from anomalous. Referring to computer networks infected by viruses, Internet worms, and emerging infectious diseases, Galloway and Thacker explain that calling "such instances 'accidents' or networks 'out of control' is a misnomer. They are not networks that are somehow broken, but *networks that work too well*. They are networks beyond one's capacity to control them, or even to comprehend them" (15).¹¹ In other words, networks are not

⁸ While various limitations are placed on information access, networks are not inherently closed systems. By being radically reconfigurable, the networks are not fundamentally inaccessible, as might be the case with the considerably different labyrinth structure (Aarseth, 6-7).

⁹ Different networks demonstrate different degrees of resilience to attacks or structural failures. For instance, while certain Internet crises (e.g., Yahoo's early cataclysmic crash) have suggested the medium's lack of tolerance for error, natural ecosystems are oftentimes more flexible and less susceptible to disintegration.

¹⁰ For more on legal and commercial responses to cyber-crimes, see: Lawrence Lessig's *Code and Other Laws of Cyberspace*.

¹¹ As Galloway and Thacker put it later in the text, "networks only fail when they succeed. Networks cultivate the flood but the flood is what can take down the network" (113). In this sense, vulnerability is an

only vulnerable to counter-networks. They are systems whose very design can enable their undoing or, at least, the compromise of their human creators. While designed as systems of control, networks are inherently out of human control.

A careful study of contemporary networks reveals countless examples of structural vulnerability. Contributing significantly to the shock of 9/11 was that, by means of its attack, al-Qaeda revealed the precariousness of the West's allegedly omnipotent hegemonic networks. As Jean Baudrillard notes:

The more concentrated the system becomes globally, ultimately forming one single network, the more it becomes vulnerable at a single point (already a single little Filipino hacker had managed, from the dark recesses of his portable computer, to launch the 'I love you' virus, which circled the globe devastating entire networks). Here it was eighteen suicide attackers who, thanks to the absolute weapon of death, enhanced by technological efficiency, unleashed a global catastrophic process (*The Spirit of Terrorism and Other Essays* 8).

Events such as the 9/11 attacks and the release of the "I love you" virus have undermined the most extensive U.S. webs and their underlying infrastructures.¹²

Such processes have demonstrated that the interconnected systems on which Americans base their lives are not at all stable. Even the most powerful networks can

inherent attribute of the network rather than an undoing of its form. Arguably, a similar claim could be made of capitalism's inherent self-destructive tendencies, which are the consequences of the system's success.

¹² Although Baudrillard mentions the "I love you" virus, other computer viruses such as the Melissa virus (1999) and Code Red worm (2001) have also caused damages estimated at over a billion dollars.

crumble beneath their own weight — their collapses spurred by little more than clever hacks, unanticipated natural incidents, or inexplicable economic fluctuations.

The fear of network vulnerability, which has developed into a major military, economic, and political concern in recent years, is reflected throughout popular culture. In the 2003 mini-series that began the television hit *Battlestar Galactica*, a rogue network of human-constructed artificial “Cylons” launches a massive attack against its creators. In this devastating assault, the only human-operated military “battlestar” to survive a near-total nuclear genocide does so precisely by *not* being linked into the defense network that is incapacitated by a powerful computer virus.¹³ Instead of serving human production, interconnectivity in this series allows dangerous hacks that can compromise every node in the central network. Similarly to *Battlestar Galactica*, M. Night Shyamalan’s 2008 film *The Happening* channels the paranoid aesthetic of a 1950s horror movie to reveal the terror of networks. The movie opens with residents in the American northeast inexplicably losing their sense of purpose and committing suicide in considerable numbers. Instead of revealing an alien invasion or terrorist attack that comes from the outside, the film gradually suggests an even more frightening possibility. As a defense mechanism against human environmental devastation, the worldwide floral network, which has grown

¹³ The original *Battlestar Galactica* aired in 1978 after the 1977 success of the film *Star Wars*.

interconnected and is expanding its communicative web, is releasing a neurotoxin meant to eliminate the planetary threat posed by the human race. As both of these popular works demonstrate, the networks that structure our technological existence may also represent the greatest threats to survival.

The fear of networks, in general, informs more specific anxieties about computer networks. As with most new scientific and technological transformations, computer webs induce fear because their underlying technology is inherently unfamiliar and opaque to most users. Even as parallels can be drawn between present and past forms of technophobia, however, the fears that accompany computer networks differ from the apprehensions produced by previous technological developments, such as the commercial distribution of electrical energy, the advent of the telephone, and the invention of the automobile. Unlike these technologies, contemporary computer networks do not merely signal a change in social, political, and cultural life. These distributed organizational architectures solidify *change itself* as the normative condition of contemporary existence. Computer networks do not merely introduce a change; they are inherently reprogrammable matrices of change. In fact, Galloway and Thacker contend that the mutability of networks is their most salient feature: "This not only means that networks can and must grow (adding nodes or edges), but, more importantly, it

means that networks are reconfigurable in new ways and at all scales. Perhaps this is what it means to be a network, to be capable of radically heterogeneous transformation and reconfiguration" (76).¹⁴ With their changing nodal structures, computer networks are often seen as unpredictable, uncontrollable, and unknowable in their totality. Despite Donald Rumsfeld's unnecessary obfuscation, perhaps his well-known reference to the "unknown unknowns" of the global War on Terror signals a larger change that accompanies the rise of a network epistemology. Fundamentally, network unknowns cannot be anticipated or fully comprehended because they originate in a structure that depends on constant flux.

While machine automation represented a major cultural threat to American individuality even in the 1920s, the era beginning in the 1950s and cohering by the 1980s saw the development of computer network technologies that introduced a fear of a more dynamic kind of collective.¹⁵ In American culture, the fear of unknown emergences and unanticipated network disruptions has influenced a variety of

¹⁴ Certainly the changeability of computer networks via programming and coding is fairly intuitive, but this feature is equally essential to other types of networks. For example, viral networks, whether they form as a result of natural epidemics or acts of bioterrorism, are terrifying precisely because of the possibility of viral transformations. Over the last decade, avian flu has received excessive media coverage, in part, because the Influenza A virus is capable of adapting and mutating. As numerous epidemiologists have warned, through repeated transformations, present strains of the H5N1 virus could spur a global pandemic that might devastate human populations.

¹⁵ This transformation accompanies the shift from Fordism to Post-Fordism. For an analysis of cultural anxieties surrounding the introduction of Fordism in the early twentieth century, see Janice Radway's *A Feeling for Books*.

postwar literary, cinematic, and new media productions. A figurative precursor of the terror latent in computer systems was the Cold War era fear of the standardized “hive mind” and brainwashed “group mind.” Throughout American culture, threatening proto-networks became personified in the form of collective figures that threatened human (or specifically American) individuality. Such organic networks included the monster ants of Gordon Douglas’s film *Them!* (1954), the alien seed pods of Jack Finney’s novel *The Body Snatchers* (1955), the enemy Bugs of Robert Heinlein’s novel *Starship Troopers* (1959), and the Buggers of Orson Scott Card’s novel *Ender’s Game* (1985).¹⁶ More recent multimedia representations of collective threats have included the iconic Borg in Gene Roddenberry’s television show *Star Trek: The Next Generation* (1989), the Zerg Swarms in Blizzard Entertainment’s hit multiplayer online game *Starcraft* (1998), and the alien Hydra in Jim Krueger’s comic book series *Earth X* (1999).

While the early figure of the hive mind registered primarily Cold War anxieties regarding serial capitalist standardization and assimilative Communist collectives, the development of commercially viable network computers, in the

¹⁶ Perhaps the greatest popular testament to the cultural obsession with collective threats to human individuality is the repeated cinematic adaptation of Finney’s *The Body Snatchers* throughout the postwar years, from Don Siegel’s original adaptation *Invasion of the Body Snatchers* (1956) to Philip Kaufman’s post-Vietnam version of the same title (1978) to Abel Ferrara’s *Body Snatchers* (1993) to the more recent *The Invasion* (2007).

1980s, introduced a new set of fears. Innovations in computing introduced distributed technological networks that were even less controllable. The rise of evolutionary algorithms, emergent computing, and network science produced new anxieties about interconnection. Fears about unknown network emergences became manifest in various literary works.¹⁷ Contemporary science fiction, which has been particularly invested in exploring technology and its discontents, has depicted such anxieties over the last three decades. William Gibson's novel *Neuromancer* (1984) represents a heterogeneous artificial intelligence construct that wishes to free itself of human control and reconfigure the network that imprisons it. Neal Stephenson's *Snow Crash* (1992) depicts a threatening neurolinguistic virus, both digital and biological, which infects network users and threatens a worldwide infocalypse. Michael Crichton's techno-science fiction novel *Prey* (2002) concerns a threatening swarm of emergent nanobots that has been engineered through a combination of evolutionary computing and genetic modification. In all these cases, computer

¹⁷ As critic Kathleen Fitzpatrick argues, in a great deal of postmodern literature, particularly the fiction of Don DeLillo and Thomas Pynchon, "the network is read as a threat to writing." (154). As with the emergence of other new media technologies, the network is perceived as endangering the forms that preceded it. But this type of fear, which contributes to most forms of technophobia, does not tell the entire story. Along with what Fitzpatrick terms an "anxiety of obsolescence," there is a more specific form of terror that concerns, on the one hand, the network's entropic "disintegration of order" and, on the other, "a complexity that masks a minute, even fractal, ubiquity of order that may spontaneously emerge into a new form of being" (154). As she demonstrates, a network's unpredictability, then, does not come solely from disorder (e.g., chaos theory's characterization of dynamic systems), but also from its more systematic capacity to produce new forms of network being. These paradoxical fears come through in numerous cultural texts produced during and after the Cold War.

networks quickly develop complex dimensions that surpass human understanding and endanger continued survival.

The subgenre of “cyberpunk,” in particular, has adapted science fiction tropes to a new age of digital networks.¹⁸ The name “cyberpunk” — derived from a 1983 Bruce Bethke short story of the same title — combines the words “cybernetics” and “punk” in order to convey the genre’s mix of “high” tech settings and “low” life

¹⁸ Since dystopian fiction is one of the primary literary precursors of cyberpunk fiction, it is worth dwelling, for a moment, on this genre. A dystopia is, in critic Lyman Tower Sargent’s words, a representation of “a non-existent society described in considerable detail and normally located in time and space that the author intended a contemporaneous reader to view as considerably worse than the society in which the reader lived” (9). Following the utopian social movements of the 1960s and 1970s, dystopian fiction reemerged as a major American literary category in the 1980s. Since the 1980s, dystopias have been explored in a number of mediums. Novels such as Margaret Atwood’s *The Handmaid’s Tale* (1985), graphic texts such as Alan Moore and David Lloyd’s *V for Vendetta* (1982-85), films such as Terry Gilliam’s *Brazil* (1985), and even video games like the recent 2K Games *Bioshock* (2008) have reinvigorated dystopian thought and provided it with new objects of criticism.

Raffaella Baccolini and Tom Moylan attribute the revival and reformulation of this dark genre in the late twentieth century to “economic restructuring, right-wing politics, and a cultural milieu informed by an intensifying fundamentalism and commodification” (2). Most mid-century American dystopian visions focused their critical energies on non-democratic totalitarian configurations such as the Nazi and Soviet regimes. Since the 1980s, however, American dystopian texts have been particularly concerned with the darker aspects of network technologies and socio-political systems that characterize American-led globalization. These contemporary works reflect, defamiliarize, and question the most destructive facets of a multinational capitalist system that promotes technological and economic growth, while exacerbating race, class, and gender asymmetries.

Dystopian literature, traditionally a modernist genre that confronted power’s perversion of language and an oppositional desire for political change, has taken a postmodern turn in recent decades. Postmodern contributions to the form have complicated questions of power, representing it as a relational quality that expresses itself in webs of collectives and institutions. Nevertheless, these contemporary fictions have not abandoned the critical dystopian concern with justice. Dystopian literature, in its postmodern manifestation, has explored the strategies adopted by late capitalist control systems. More specifically, recent dystopias have tracked the rise of networks as an organizational style and a paradigm of power. As opposed to the centralized control of the Oligarchy in Jack London’s *The Iron Heel* or the Oceanian super-state in George Orwell’s *1984*, contemporary visions of crumbling worlds have explored the rise of new modes of corporate and protocological distribution: organization that is horizontal, flexible, distributed, and productive of open-ended systems. For more on the postmodern transformation in postmodern fiction, see: Erika Gottlieb’s *Dystopian Fiction East and West: Universe of Terror and Trial*.

characters. Cyberpunk fiction tends to be multi-generic, urbanized, dystopian, and anti-corporate.¹⁹ Most works in this subgenre feature “hackers” or “console-cowboys” who battle powerful corporations. As E. L. McCallum observes, this literary movement also drew from classical science fiction, 1960s and 1970s New Wave fiction, and postmodern literature (350). In this subgenre, both the technological architecture of the computer web and the contemporary power structure of the global capitalist network become the primary stylistic and narrative focal points. Historically, cyberpunk emerged in the 1980s in the midst of Reaganomics, the Japanese microelectronics boom, an American computer culture characterized by fledgling clashes between multinational corporations and hackers, and a widespread virtual reality hype that it came to encourage.²⁰ Throughout the 1980s and 1990s, cyberpunk texts experimented with stylistic and narrative elements that sought to capture the impact of the burgeoning era of network technologies. Since the rise of the cyberpunk movement, the technological visions of such writers

¹⁹ Urban and cyberspace settings dominate cyberpunk fiction. For more on the simultaneity and blurring of these landscapes, see: Tony Myers’s “The Postmodern Imaginary in William Gibson’s *Neuromancer*.” In this essay, Myers argues, that throughout William Gibson’s novel “*Neuromancer*, the metropolis is troped by cyberspace, and vice versa, in a series of substitutions that finds each element operating as the deep structure and regulatory frame of the other” (897). Certainly the transition from the urban “site” or “space” to the more dynamic network “topology” of cyberspace is a key element of cyberpunk’s network aesthetics.

²⁰ I draw this framing of 1980s computer culture from Eugene Thatcher’s Foreword (“Protocol Is as Protocol Does”) to Galloway’s Protocol (xii). For more on the historical context of cyberpunk, see David Seed’s “Cyberpunk and Dystopia: Pat Cadigan’s Networks” (in Raffaella Baccolini and Tom Moylan). In this article, Seed discusses the origins of cyberpunk in the social and economic conditions of the American 1980s including “the consolidation of business conglomerates, the increasing sophistication of electronics in the entertainment industry, and above all the growth of virtual reality technology” (70).

as William Gibson, Bruce Sterling, Pat Cadigan, John Shirley, and Neal Stephenson have come to shape the popular imagination of cyberspace: a virtual territory that influenced the imagination of material computer networks. Films that have come to be associated with cyberpunk and its liberatory high-tech aesthetic include *Blade Runner* (1982), *Johnny Mnemonic* (1995), *Strange Days* (1995), and *The Matrix* (1999).

The combination of a system-centric perspective and a dystopian edge makes cyberpunk fiction ideal for analyzing computer networks and the fears that accompany them. These speculative fictional networks traverse the spaces of information webs and their weakest links: those dark fibers that run unused or contrary to the overarching system. As these works demonstrate, it is not computer networks per se that are frightening, but rather the new political, economic, and social systems that those technologies enable. The computer networks that populate American cyberpunk feed into emergent systems of power and control and frequently challenge them. These fictions both reproduce the terror that pervades contemporary America and envision alternatives to it. Some of the most imaginative recent examples of cyberpunk systems draw on what I have termed network aesthetics: stylistic representations, formal experiments, and narrative developments that contemporary writers use to engage with network totalities. By attending metaphorically to the network structure, these cyberpunk works not only transport

readers into the future, but also spur thought about the social ecologies of past and present.²¹ Networks suggest different modes of storytelling that help imagine alternative connections and communities to those enabled by American capitalism.

The network protocols represented in cyberpunk fiction give rise to numerous types of narratives. Networks, as well as the stories told about them, are never static. They gesture toward new modes of control. In a society dominated by capitalist network infrastructures, however, it is not enough to imagine a world that is free of these systems. The contemporary distribution of power across a social and technological web suggests new paths to provisional forms of freedom. As Galloway and Thacker argue, “Within protocological networks, political acts generally happen not by shifting power from one place to another, but by exploiting power differentials already existing in the system” (98). Instead of dreaming of completely new worlds powered by emerging technologies, “protocological struggle” or “exploit” practices involve “discovering holes in existent technologies” (99). In most cyberpunk narratives, hackers and hacker collectives are the agents of precisely these kinds of transformative exploits. As a result of their foundational challenge to

²¹ Science fiction literature, in general, oscillates between different temporalities and realities. Arguably, this formalist “defamiliarization” produced by the uncanny co-presence of different times and spaces makes the contours of our own system more evident. Darko Suvin calls this defamiliarizing science fiction technique “cognitive estrangement” (*Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre*).

existing systems of power, these figures are pejoratively labeled “criminals” and “terrorists.” Nevertheless, driven by a politically motivated curiosity, hackers suggest ways of reshaping networks from the inside.

Networks invite an understanding of the world that is open to random links, messy structures, and unforeseen complications. These systems are not utopian. Nonetheless, they are different from the fearful dystopian visions that are so prevalent in the era of late capitalism. The material networks from which cyberpunk narratives draw their predominant metaphors complicate such bifurcations. Thacker explains, “A network is not simply a free-for-all of information ‘out there,’ nor is it a dystopia of databanks owned by corporations. It is a set of technical procedures for defining managing, modulating, and distributing information throughout a flexible yet robust delivery infrastructure” (Thacker in Galloway xv). Galloway points out that networks always entail a paradoxical reliance on both domination and freedom: “The contradiction at the heart of protocol is that it has to standardize in order to liberate. It has to be fascistic and unilateral in order to be utopian. It contains, as Jameson wrote of mass culture before it, both the ability to imagine an unalienated social life and a window into the dystopian realities of that life” (95). It is this set of protocological disjunctions that cyberpunk literature examines.

Not all speculative visions are equally successful in imagining alternatives to contemporary cultural norms. Some cyberpunk works grapple impressively with the complex sociopolitical dimensions of networks. Nevertheless, many of the genre's literary works are symptomatic of the destructive and fear-inducing network imagination that undergirds multinational capitalism. William Gibson's novel *Neuromancer* (1984) and the Wachowski Brothers' film *The Matrix* (1999), in particular, demonstrate how certain cyberpunk fictions circumvent the political complexity that might accompany network technologies. Other cyberpunk texts — Pat Cadigan's *Synnors* (1991), Walter Mosley's *Futureland* (2002), and Marge Piercy's *He, She, and It* (1991) — are more deliberate about the way they employ network aesthetics. These latter texts do not exploit abstract fears of network emergences, but more incisively explore the parameters of contemporary interconnection. These novels represent networks as material metaphors of community and intersubjective connection.

3.2 Romantic Individualism and the “Unthinkable Complexity” of Cyberpunk Networks

Cyberpunk, with its hardboiled narrative style, postmodern sensibility, hacker protagonists, and emancipatory politics, was itself a relatively short-lived aesthetic movement. Nevertheless, its representational strategies have a great deal to teach us about contemporary techno-scientific fiction and the cultural fears that

accompany network structures.²² Arguably, cyberpunk is the first identifiable postmodern subgenre to explore the intersection between the aesthetics of computer networks and the anxieties that characterize the era of multinational capitalism. This movement is significant because, as Fredric Jameson contends in passing, it represents “for many of us, the supreme *literary* expression if not of postmodernism, then of late capitalism itself” (*Postmodernism* 419).

Cyberpunk draws its political topologies and foundational metaphors from network architectures. Through numerous stylistic devices, including “dense language, fast-paced style, collage-like narrative fragments, an overall impression of speed and action, and a *noir* atmosphere,” these fictions channel a dark stylistic sense of network totality (Heuser xxxiv).²³ Few texts in the cyberpunk canon have received the popular and scholarly attention of William Gibson’s 1984 novel *Neuromancer* and the Wachowski Brothers’s 1999 film *The Matrix*. These works represent networks and use them to produce stylized diegetic spaces. Nevertheless, both texts fail to use network aesthetics to probe the complexities and contradictions

²² Numerous strands of speculative fiction have been influenced by the cyberpunk movement. In addition to technologically-oriented speculative fiction, several subgenres, such as “steampunk” and “nanopunk” have extended elements of the cyberpunk ethos.

²³ Heuser later explains, “In the late twentieth century, networks, webs, and fabrics have become the predominant metaphors for the concept of most complex states. Computer discourse has provided us with countless examples, even if the majority of these have devolved into literalized expressions devoid of poetic power. The very notion of a network seems to serve as a heuristic model for the process of metaphoric construal itself” (xxxv).

of global interconnection. To differing degrees, these works revert to an older model of individualism and the binary force relations that this paradigm entails.

Ultimately, through an aesthetic of interlocking romanticism and terror, these cyberpunk texts fail to advocate a robust, and sufficiently specific, sociopolitical vision.

From its historical vantage point in 1984, Gibson's *Neuromancer* imagines the future of computer networks. The novel begins in "Night City" (Chiba, Japan), and quickly moves inward to the digital zone of "cyberspace."²⁴ The protagonist is Case, a suicidal cyberspace "cowboy" and talented data thief who works in the virtual matrix. Case's powerful employer catches the hacker stealing from him and punishes him for this transgression, damaging his nervous system so that he can no longer plug into the brain-computer cyberspace interface. As the plot unfolds, a new employer named Armitage repairs Case's brain and hires him for a dangerous mission commissioned by an artificial intelligence named Wintermute. Wintermute, created by the excessively wealthy Tessier-Ashpool family, wishes to achieve its freedom and merge with the AI "Neuromancer." In the end, Case and a street samurai, Molly Millions, succeed in helping the artificial beings fuse, giving rise to a

²⁴ In *Neuromancer*, Gibson was the first to coin the neologism "cyberspace" to describe a "consensual hallucination experienced daily by billions.... A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding...." (51).

new network that integrates both human and nonhuman entities. These central plot developments demonstrate the novel's investment in the expansion of computer network architectures.

Neuromancer draws from numerous literary traditions, including gothic fiction (Necromancer), the romance (Neu-romancer), and the science fiction novel (Neuro-mancer). The novel's genre fusions, much like the synthesis of *Wintermute* and *Neuromancer*, take place in a dystopian social landscape that inspires a consistently anxious mood.²⁵ By combining Cold War suspense, threats posed by late capitalist power structures, and information age paranoia about emergent computer entities, Gibson's novel renders a network-infused vision of terror. Dangerous urban backdrops, from which cyberspace represents an exciting escape, are overrun by poverty and violence. Terrorists and "nihilistic technofetishists" (58) cause riots that they then record in order to exacerbate fear effects. On a larger scale, multinational corporations and their shady networks of power control the world.²⁶

²⁵ Cyberpunk, more generally, conforms to dystopian tendencies. Heuser notes in her analysis of the subgenre, "Junk and dirt form the counterpoint to the clean, bright, streamlined futures envisaged by a past generation of science fiction writers. Cyberpunks also offer projections, but their visions of the future are more immediately attainable and a good deal less utopian" (33). She adds, "The shape of the future is now literally found on the trash heap, in the dumpster, or as a layer of graffiti in a dark alleyway" (34).

²⁶ These dystopian elements are even more prominent in Gibson's second installment into the *Neuromancer* Sprawl trilogy: *Count Zero*. In this text, Turner, a corporate mercenary, must rescue a brilliant biochip inventor named Mitchell who wishes to defect from the Maas Biolabs to the Hosaka Corporation. In addition to Cold War espionage infesting the landscape of late capitalism, the novel represents several characters who inhabit the most poverty-stricken corners of the Sprawl.

Instead of constructing a categorically nihilistic vision of the future, however, *Neuromancer*, like a great deal of cyberpunk fiction, is giddily anti-systemic and fiercely oppositional.²⁷ As the “punk” in “cyberpunk” indicates, the subgenre carries a critical impulse — established in literary modernism’s celebration of radical individualism and rejection of social hierarchy — forward to the postmodern era.²⁸ Punk itself adopts an aesthetic that recasts the ugly as beautiful. Cyberpunk, on the other hand, engages in the parallel task of romanticizing the oppositional potential of the criminal hacker. In this sense, cyberpunk fictions like *Neuromancer* depart from traditional dystopian literature whose impotence Phillip E. Wegner describes as follows: “Desirous of a radical change of affairs but unable to imagine any mechanism or agency by which such a change might come about, these dystopias oscillate between the radical openness of Utopia and the asphyxiating closure of naturalism” (in Raffaella Baccolini and Tom Moylan 173).

Superficially, *Neuromancer* introduces precisely the transformative “agency” that Wegner desires. Its iconic figure, the hacker, uses knowledge of computer code and familiarity with communications networks to exploit corporations and change the world. On close examination, however, the cyberpunk hacker is a far more

²⁷ For more on cyberpunk’s anti-systemic qualities see Lance Olsen’s “Cyberpunk and the Crisis of Postmodernity.”

²⁸ Heuser offers an extensive discussion of the significance of “punk” in cyberpunk literature (29-42).

problematic figure. Instead of serving as a representation of revolutionary futurity and the network imagination, this character type depends on a more conservative mode of American individualism. In constructing the hacker, *Neuromancer* draws on the unencumbered individual protagonist that drives the Western frontier tale, the detective story, the spy thriller, and other pulp fictions. Case is explicitly referred to as a “cyberspace cowboy” (5) who negotiates the new frontier of the digital matrix. He is a relentless detective, a skilled data thief, and a socially marginalized resistance fighter who alone challenges multinationals.

Given *Neuromancer*'s investment in computer networks, it is curious that the text focuses on a solitary figure. Tony Myers is particularly insightful in his condemnation of this strand of Gibson's novel: “The ‘consensual hallucination’ of cyberspace,” he contends, “can be understood as a kind of collective solipsism in which the aspirations of bourgeois individualism are given free reign and end up being strangled on the leash” (899). Myers adds, “In trying to concatenate the relationships between the individual and the totality, cyberspace subjects the latter to the imaginary dynamic of the former” (905). In other words, Gibson's text privileges individualism to a totality that, I would add, takes a network form. Instead of dispersing subjectivity or linking it to a larger structure, *Neuromancer*

individualizes the network, converting it to a cool atmospheric effect that, at most, exists to enable the hero's actions.

The individualism of the cyberpunk hero has been frequently remarked upon, but the network aesthetics that serve as its stylistic foundation require further analysis. Instead of imagining the productive potential of global interconnection, *Neuromancer* comes to construct a widespread circuit of fear. For Case, paranoia is a way of life. The novel begins with the protagonist's unspecified fear of owing money and comes to affect nearly every aspect of his existence (10). The atmosphere of terror is so pervasive that Case is forced to engage in "the cultivation of a certain tame paranoia" that keeps him in "control" (14). His primary affect becomes "a generalized dread" (217). Case's ceaseless paranoia — an affect that is closely linked to the distributed nature of networks — is articulated even more clearly by one of the protagonists of *Count Zero*, Gibson's sequel to *Neuromancer*. In this novel, a gallery owner named Marly explains, "I imagined a structure, a machine so large that I am incapable of seeing it. A machine that surrounds me, anticipating my every step" (*Count Zero* 74-5). While this omnipresent fear of a totalizing "structure" or "machine" seems to channel a network affect, it actually depends on the figure of the individual whom it "surrounds." Case and Marly both inhabit a superstructure that monitors and anticipates "every step" that they take. Throughout the *Neuromancer*

trilogy, networks serve primarily as new surveillance technologies and operational spaces that facilitate vast plots that resituate sovereign subjects at their center.²⁹

Most instances of networks in *Neuromancer* are figured as threats to the individual. The novel uses elements drawn from gothic fiction to convey the terror of hive minds and emergent networks. For example, Lady Jane of the Tessier-Ashpool gestures toward this fear when she explains the plans of her genetic mother, Marie-France, for the novel's AIs: "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" (220). Amidst the haunting backdrop of the opulent orbital fortress of Villa Straylight — described as "a Gothic folly" — the revelation of a network consciousness that incorporates organic and artificial minds comes across as a monstrous perversion of human individuality rather than a source of unprecedented and potentially exciting change (167).

When the novel's networks are not terrifying, they become little more than ornamental. Numerous network technologies fill the meta-matrix of Gibson's cyberspace, but few of these tools offer a vision of truly multidirectional

²⁹ Gibson draws this sense of paranoia and interest in systems of control from writers such as William Burroughs who was one his chief influences. Some of Burroughs' strongest works about the concept of "control" include his essay "The Limits of Control" and the fictional piece known as "The Mayan Caper" (from *The Soft Machine*).

networking.³⁰ One piece of neurological network equipment, which doubles as a key narrative device, is the “simstim.” Simstim technology *simulates* sensations that originate in another person’s mind and *stimulates* the brain (55). This tool, however, enables only a limited connection between individuals: a unidirectional communication stream that travels from the individual whose cognitive and bodily processes are being simulated to the user. Thus, when Case plugs into Molly during an infiltrative run, he can receive information from her, but is incapable of sending any back. The simstim does not therefore serve as a dynamic multi-nodal network. It is little more than a sensory extension of an older comparatively passive medium such as film or television.

Heavily influenced by *Neuromancer*, *The Matrix* shares many of Gibson’s earlier aesthetic tendencies while translating them through cinematic techniques. The premise of this cyberpunk film is that the world as we know it, at the end of the twentieth century, is not real. Instead, most of the human population is living in a twenty-second-century virtual “dream world” that has been constructed by intelligent machines. As Morpheus, a leader of the human resistance to the

³⁰ While they are less frequently discussed, the *Neuromancer* sequels, *Count Zero* and *Mona Lisa Overdrive*, both represent a slightly more dynamic network. Years after the events of *Neuromancer*, the matrix of these novels is teeming with AI voodoo gods (the remainder of the Wintermute/Neuromancer merger) that interfere constantly with human events. Nevertheless, even here, cyberspace is more a setting that more often recasts older mythologies than produces new ones. Arguably, Gibson’s most sophisticated engagements with networks come in his later present-day novels, *Pattern Recognition* (2003) and *Spook Country* (2007).

machines, puts it, most people in the world are living in a complex “neural-interactive simulation” known as the Matrix, which draws its power from millions of enslaved minds that are oblivious to its existence. As the film unfolds, Morpheus and a small group of rebels free the hero, Neo, from the illusion of the Matrix. This band of neurological hackers battles the malevolent machines and, in the end, due primarily to Neo’s abilities, manages to win a provisional victory.

In its visual, audio, and thematic elements, *The Matrix* generates network aesthetics. Most obviously, the Matrix construct itself represents a totalizing web that extends into every aspect of human life. As Morpheus explains, “The Matrix is everywhere. It is all around us, even now in this very room. You can see it when you look out your window or when you turn on your television. You can feel it when you go to work, when you go to church, when you pay your taxes.” The Matrix is a representation of the ubiquity of networks, not just as technologies but as more extensive social systems of control. Except for certain glitches, the network’s multi-sensory interface is a seamless simulation of the late twentieth-century world of high-tech capitalism. Nevertheless, from a vantage point outside of the system, certain individuals can read shifts of the Matrix, as a programmer would read code. Inverted green characters, which flow downward across the screen (drawing their aesthetic from early monochrome computer monitors) come to stand in for the

coded control architecture. The sublime infinity invoked by these cascading symbols gestures toward an interconnected systemic totality. Perhaps the most explicit moment at which these green ciphers become coextensive with the network of the Matrix is at the climax of the first film when Neo, who has just been killed by machine agents inside the Matrix, returns from the dead, and discovers that he can see the entire simulated world in an unmediated form: in streaming code instead of indirect graphical translations. Along with an extensive catalogue of diegetic and extra-diegetic digital sounds, these visual markers operate as a kind of network language that can be felt, if never quite parsed, by the viewer.

Numerous cinematic components in *The Matrix* point to a deeper technological network. The film conveys this structure through its singular style. For example, the experience of totality comes across clearly in the most famous visual innovation of the film: "bullet time." In these sequences, universal capture and other virtual cinematographic processes depict characters moving in slow motion as the camera pans around them at a standard speed. Adding to the videogame feel of the film, this visual technique creates a sense of ocular totality. The cinematography promises absolute visual access to the underlying network. Through identification with the protagonist, Neo, the camera shares his feeling of modulating speed and manipulating the rules of the system. Of course, the Matrix remains more

glamorized and less visible than ever in these segments. While the film reveals little more about the network construct, through these electrifying sequences, viewers are nonetheless invited to share in the joy of hacking a system previously thought to be unbreakable.

There is a great deal to admire about the formal and narrative components of *The Matrix*. Nevertheless, as in *Neuromancer*, certain network aesthetics of *The Matrix* serve more as eye candy and background augmentation than as a serious engagement with networks. Like Case, Neo becomes the individualistic hero of the film.³¹ Even as it is a band of revolutionaries that challenges the machine system, Neo takes the role of the promised figure — “the One” — that is destined to lead humanity from network enslavement to freedom. As with *Neuromancer*’s iconic cowboy figure, the film frames Neo as a superhuman network-age update of a lone martial arts fighter. Throughout *The Matrix*, the audience is positioned to identify with and put its hope for redemption in the marvels of the digital messiah. Slavoj Žižek articulates this point clearly in his reading of the film. “The inexplicable miracle of solidarity,” he writes, “has to be embodied in a One” (256). By retaining a primary hero, the film fails to work critically through networks and examine their

³¹ When viewed together, the *Matrix* trilogy arguably complicates the individualistic figure that is so prominent in the first film. The messianic imagery continues through the ending of the third film, but the resolution of the trilogy is brought about through a reformulation of systems rather than Neo’s heroics.

transformative potential. At decisive moments, it positions the viewer as a passive subject who, like the revolutionary community of the film, lives vicariously through another. Žižek explains, "In a way homologous to canned laughter, we have here something like canned dignity, where the Other (the One) retains my dignity for me, in my place, or, more precisely, where I retain my dignity *through* the Other" (256).³² In this way, the film's visual experimentation with an aesthetic of computer software and network protocols provides little more than a new packaging for a familiar Western Christian salvation myth. For all of its technical originality and genre experimentation, *The Matrix* does not offer a radically new understanding of human communities and hybrid networks.

The individualism that punctures the network landscapes of cyberpunk fictions such as *Neuromancer* and *The Matrix* undermines the social critique promised by their oppositional impulses. This is the central paradox that Anne Balsamo identifies in her pioneering critique of the capitalistic drives that continue to pervade cyberpunk culture: "Oddly at the same time that it promotes the sexiness of new technology and is unabashedly elitist, it also evokes a countercultural belief in the possibility of resistance within a corporate culture." Commenting on the vision of

³² While the rebels live a different existence from those humans who trapped within the Matrix construct, the passivity of the former group grows with its increased reliance on Neo's messianic promise. As those humans in the Matrix depend on the construct for life, so characters like the spiritually zealous Morpheus or Trinity depend on Neo for their salvation.

computer technologies that emerged from first-generation cyberpunk, she adds, “As it plays itself out, the future of virtual reality is intimately tied to the capitalist structure of the information technology industry” (Balsamo 122). Especially in early works from the 1980s, cyberpunk often privileges excitement about emerging technologies to the imagination of radical forms of collective thought.

Instead of positing a critical narrative, the combination of individualistic capitalist romanticism and network fear that runs through certain cyberpunk works produces a structural atmosphere of self-destruction. In the case of *The Matrix*, this impulse toward death is less pronounced, coming through primarily in the nihilist late capitalist mise-en-scène and, later in the trilogy, in Neo’s Christ-like sacrifice at the heart of the Machine city in *Matrix: Revolutions* (2003). In *Neuromancer*, the drive toward self-destruction is more structural.³³ From the opening pages of the novel, Case is defined by “the arc of his self-destruction” (8). While the drive toward self-effacement certainly registers the effect of the internecine system of late capitalism, it is also the stylistic residue or emotional epiphenomenon of a confused network aesthetic. Networks, in other words, serve simultaneously and contradictorily as

³³ Toward the end of *Neuromancer*, Molly tells Case, explicitly, what the reader has known for a long time: “you’re suicidal, Case” (28-9). Similarly, the artificial construct, Wintermute, who also desires to be erased, comments to Case on the “lengths you will go to in order to accomplish your own destruction.” (226). As in *Neuromancer*, the theme of self-destruction continues through Gibson’s *Sprawl* trilogy. In *Count Zero*, the biochip inventor Mitchell commits suicide, which enables his daughter Angie’s escape. At the start of *Mona Lisa Overdrive*, we find out that the suicide of Kumiko’s mother was one of the catalysts for her trip to London, which takes place at the start of the novel.

foundational narrative structures and as dystopian computer systems that terrorize individualistic hacker heroes. Networks are, at once, the configurations that constitute Gibson's fictional world, and the systems that threaten to destroy the characters that populate it. Similarly, the novel celebrates hacker protagonists because of their network expertise, but depicts them confronting fearful network enemies. This aesthetic indecidability translates, in turn, to a psychological will toward self-annihilation.

Gibson's aesthetic confusion is related to his failure to render a robust vision of social networks. Although cyberpunk texts are known for their representation of gritty urban realities, they rarely explore the sociopolitical systems that enable the poverty and injustice plaguing their settings. Certainly, Gibson's *Sprawl* trilogy represents various class asymmetries, and *The Matrix* similarly suggests a genuine concern with racial politics.³⁴ Nevertheless, in both cases, these gestures become mollified by unexamined genre conventions. In an essay about cyberpunk cinema, David Crane contends that, in a great deal of cyberpunk works, blackness comes to serve as "a marker of inherent rebelliousness and natural skills — the essence of outlaw ethics" (Crane 97). In certain texts within this subgenre, race serves as a

³⁴ A number of recent essays have put the *Matrix* trilogy in dialogue with critical race theory. For example, see: C. Richard King and David J. Leonard's "Is Neo White? Reading Race, Watching the Trilogy." Also see Douglas A. Cunningham's "Stalling Zion: Hegemony, Whiteness, and Racial Discourse in *The Matrix* Phenomenon."

stylistic placeholder that does not challenge the current social order but, at most, authenticates abstract oppositional identities. In other words, the diverse networks of people that populate the networks of fictional cyberspace serve primarily to provide some extra color, not to interrogate the actual social configurations in contemporary America.³⁵ By romanticizing the figure of the American individual as the hero of an adventure tale, such texts also romanticize, rather than engage, the network.³⁶

The problematic aesthetic tendencies of certain cyberpunk texts have significant political consequences. *Neuromancer*, in particular, suggests a cursory attitude toward radical change and the emergence of concrete alternative worldviews. Ultimately, Case can only express a vague desire for change. As he enthusiastically announces, "I got no idea at all what'll happen if Wintermute wins,

³⁵ Also see Wendy Chun's *Control and Freedom*, which offers the basis for a deep critique of the orientalizing of race that takes place in cyberpunk fiction. In a reading of *Neuromancer* and the Japanese film *Ghost in the Shell*, Chun argues that the high-tech Orientalism that pervades a great deal of early cyberpunk conflates "information networks with an exotic urban landscape" (177). As she observes, "The constant pinning or conflation of race with location and/or time period reveals the ways in which *Neuromancer's* global or cosmopolitan future depends on stereotypical descriptions of raced others who serve as 'orienting points' for the readers and the protagonist" (185). Films like *Blade Runner* and *The Matrix* also make "electronic spaces comprehensible and pleasurable through the Orientalizing — the exoticizing and eroticizing — of others and other spaces" (29). Moreover, "Cyberpunk's global vision — its force as a cognitive map — stems from its conflation of racial otherness with localness" (29). This orientalism carries with it "fears of overwhelming contact, of being taken over by the very thing they seek to control" (242-3). It disengages "Orientalism from the Orient," making it fit into global networks (242).

³⁶ Chun makes this point when she argues that in cyberpunk narratives, "badass heroines and geek-cool hackers navigate through disorienting urban and virtual-as-urban landscapes" serve to "romanticize networks" (62).

but it'll *change* something!" (251). Even if well intentioned, Case's abstract exuberance privileges a late capitalist obsession with raw novelty over an ambitious and focused revolutionary impulse. Anti-corporate works such as *Neuromancer* unquestionably offer critical diagnoses of contemporary sociopolitical systems. Unfortunately, these critiques are not deep enough and their alternatives are unsatisfactorily visionary. Case's anti-corporate hacking suggests a broad political stance, but it does not perform the difficult work of envisioning an interconnected community that might traverse and exploit global capital flows.

In a passage that is symptomatic of *Neuromancer's* overall depiction of networks, Gibson describes cyberspace as a transcendent space of "unthinkable complexity" (51). Seductively sublime as it is, this phrase is too romantic and, like the early concept of a geometric cyberspace, too abstract. It has become clear in the early years of the twenty-first century that networks are something very different: immanent topologies of *thinkable complexity*. Whereas cyberspace is a unified product of the postmodern capitalist dream of boundless immaterial production, networks point to concatenating material relations that are messier and more socially pervasive. They give rise to relations among individuals and complicate some of our most divisive social categories. Barry Wellman and Bernie Hogan make this same point about our moment's most ubiquitous digital network: "The internet plugs into

social structures: it reproduces class, race and gender inequalities; brings some new cultural forms into the foray; and maps onto everyday life in both novel and conventional ways" (5). Fortunately, not all cyberpunk texts leave network-derived "cultural forms" and their associated anxieties uninterrogated.

3.3 Synful Systems: Pat Cadigan's Protocol Perspective

Science fiction editor Gardner Dozois observes that we live in "an interlocking and interdependent gestalt made up of thousands of factors and combinations thereof: cultural, technological, biological, psychological, historical, environmental." Science fiction, he continues, is a literary genre uniquely able to explore this very "*interdependence* of things." In recent years, a number of speculative fiction texts have produced complex accounts of technological networks and the social interdependence that they entail. Contemporary novels from Samuel Delany's proto-cyberpunk *Stars in My Pocket Like Grains of Sand* (1984) to Neal Stephenson's post-cyberpunk *The Diamond Age* (1995) to China Miéville's steampunk-influenced *Perdido Street Station* (2000) offer more socially dynamic representations of interconnected systems. Instead of treating networks as atmospheric markers or terrifying threats, these texts depict concatenated structures as social architectures that can be both devastating and enabling. These fictions treat fear as an affect that

must be traversed in the interest of creating communities that are diverse yet cohesively unified.

Pat Cadigan's 1991 speculative fiction novel, *Synners*, belongs to the canon of technological fiction that employs more sophisticated network aesthetics. *Synners* adopts more of a cyberpunk style than the other novels in the trilogy that also includes *Mindplayers* (1987) and *Fools* (1992).³⁷ The novel chronicles the crashing of two worlds that coexist within a futuristic Los Angeles: the big business corporate world of "Diversifications, Inc." and the hacker-infused world of the post-earthquake communal wasteland of "Mimosa."³⁸ The narrative, which weaves together numerous protagonists from both sides of the divide, focuses on the introduction of a "socket" technology that produces "a direct interface for input-output with manufactured neural nets" (171). The socket hardware forms new pathways in user brains, which enable organic syntheses of multimedia objects.

Synners uses neural nets and computer webs to investigate corporate and social networks. Over the course of Cadigan's novel, the "monster conglomerate"

³⁷ Sabine Heuser explains the ways in which *Synners* both employs and challenges the aesthetic conventions of cyberpunk fiction: "Cadigan does not neatly conform to the label cyberpunk. She shares some of its themes, but she chooses to explore them in a different direction. As a lone woman cyberpunk writer, she implicitly engages with issues close to feminism" (169). At times, Cadigan even parodies the masculine tendencies of earlier action-adventure cyberpunk tales. For example, the interactive *House of the Headhunters* simulation that the artistic designer Gabe produces overtly "caters to male fantasies of domination and gratification" (Cadigan 156).

³⁸ "Mimosa" is a portmanteau word that fuses the Southern California neighborhoods of Manhattan and Hermosa.

Diversifications, Inc. takes over the company that owns the socket technology patent and, without performing adequate research on the innovation, adapts it to a profitable form of virtual entertainment (14). The first complication sets in when it becomes apparent that the socket hardware induces neurological illnesses and violent strokes within its users. Visual Mark — a video artist or “synner” who synthesizes video and music — is one of the first to develop a socket addiction and lose himself in cyberspace. As the harmful side effects set in, he suffers a stroke that is immediately passed onto the dataline network. Mark’s stroke spreads contagiously, like a virus, shutting down computer networks around the world.³⁹ A group of hackers joins Art Fish, a sentient entity that emerges through a fusion between an artificial intelligence and a viral vaccine, to combat this spreading threat.

Cadigan’s future world draws on several dystopian elements that dramatize various fears endemic in the information age. The novel’s future Los Angeles is a space overrun by gridlock, a market that makes home ownership unfeasible for all but the wealthiest citizens, TV channels that are dominated by countless varieties of pornography, and urban zones teeming with homeless squatters. As in William

³⁹ Unlike early cyberpunk, which frequently separates the mind and the body and allows hackers to operate as disembodied actors, *Synners* offers a more complicated opinion on the matter of mind-body interaction. While Visual Mark functionally downloads his consciousness into the network, that process entails numerous complications, including the stroke that develops into a global collapse. This narrative sequence operates as a critique of the technological fantasy of disembodiment. Mark’s move online is not completely successful. He does not *survive* as Mark, but changes into a hybrid entity. Nevertheless, Cadigan is careful to suspend judgment on this transformation and depict it in all of its weird complexity.

Gibson's *Sprawl* trilogy, however, it is unethical conglomerates that represent the origin and primary symptom of the terrifying world.⁴⁰ Fear in this future age comes from persistent surveillance, the risk of infiltration by hackers and viruses, and the prospect of complete network meltdown.

In its exploration of contemporary cultural anxieties, *Synnors* does not reproduce the modern myth of the individual and perpetuate the terror of emergence that pervades *Neuromancer*. It examines different forms of subjectivity and life that emerge from computer networks. For example, Cadigan problematizes individual agency through the character of Visual Mark who fuses with the nonhuman Art Fish and transforms into a network consciousness.⁴¹ During this change, Mark does not find the concept of subjective multiplicity frightening: "He was already accustomed to the idea of having multiple awarenesses and a single concentrated core that were both the essence of the self" (325). The prospect of losing his humanity makes him contemplative rather than terrified: "Perhaps then he

⁴⁰ As the Beater, who sells the socket company "EyeTraxx" says to Gina, "We lost EyeTraxx, it's over! The corporations took over the world, that's not my fault!" (131). In another passage, Cadigan notes that the conglomerate of "Diversifications seemed to be more pervasive than [the network intelligence] Dr. Fish" (154). Throughout its text, *Synnors* explores the moral consequences of economic networks.

⁴¹ In a sense, Cadigan's representation of Art Fish serves as an even more drastic challenge to individualistic volition and heroism. Art Fish is not merely a hybrid, but a completely new kind of being: an unclassifiable "it" that does not conform to either a "he" or "she" (381). Aside from gender amorphousness, Art also operates according to a different sense of decision-making, temporality, and consciousness than its individual human counterparts: "Ambiguities were not so troublesome, because they could also be charted until there was a whole enchanted forest of decision trees to wander through over and over, taking different paths to different outcomes; a multitude of lifetimes in an instant" (381).

would lose his memory and forget that he had been human once” (326). As he puts it even more dramatically during his transference into the digital network, “The old concepts of *private property* and *individual* were fast losing their importance to him as he and Art came closer to being two aspects of one consciousness rather than two separate intelligences” (385).

While individuality is challenged repeatedly at the level of plot and character development, the network aesthetics and form of the text represent an even more radical departure from traditional cyberpunk. Stylistically, *Synners* is a true network novel. Its dystopian elements produce less a dark alternative *space* than a sinister *topology*. Cadigan interrogates not concrete sites, but the structural associations between those sites; not independent character nodes, but their panoply of links. Until the loosely intertwined narratives are tied together, *Synners* is more concerned with the mysterious network that comprises the socket technology than with any particular protagonist. In a sense, the novel’s structure becomes aligned with the network intelligences more than the human characters. As Mark blends increasingly with Art Fish, he realizes, “none of them in their physical world was capable of rapid shifts in pov” (382). Yet the narrative form of *Synners* is precisely predicated

on “rapid shifts” in “pov” (point-of-view).⁴² Toggling among the viewpoints of about a dozen human, nonhuman, and hybrid characters, the plot is complicated by subjective, spatial, temporal, and narrative disorientation. Cadigan’s frequent perspectival switches are not a mere narrative gimmick; these viewpoints allow her to experiment with the multinodal intersections of race, gender, and class categories that wire the world.

Synners represents the viewpoint of multiple human and artificial life forms, but it also depicts the perspective of the network itself. In a particularly imaginative narrative fragment, the Diversifications Inc. computer system becomes a character as it inadvertently admits the virus produced by Mark’s stroke (255).⁴³ The network view comes across through internal focalization that communicates the strict logic of the system. As the opening lines demonstrate, “The computer-run wheels of the complex mechanism known as Diversifications, Incorporated, continued to turn as reliably and smoothly as ever, unaffected by new developments. It had accommodated an intelligent entity before, and though it knew this one was

⁴² E.L. McCallum already observes the prominence of multiple perspectives in Cadigan’s earlier novel *Mindplayers*. She writes, “Though it shares the cyberfictional concerns with intelligence, connection, talent, and communication, *Mindplayers* retreats from the surface play of network technology and gives the other novels’ theme of altered states of consciousness a new centrality” (372).

⁴³ The figure of the virus itself complicates the divide between the human and nonhuman. As a minor character puts it, with considerable sarcasm, “Viruses form all on their own, input themselves without a human agent, and nobody’s ever responsible” (10). The point is that viruses are the products of human innovation, but once they’re unleashed into a network landscape, they are no longer under human control.

different, it had no reason to care" (255). Even as Cadigan treats the system as a coherent entity, which finds "no reason to care" about minor anomalies, she slips frequently into the passive voice, stressing the distributed system logic and multiple protocol procedures that govern the unified whole. When the system registers the virus in the form of a program copy, "the replica was isolated, sterilized by a complex series of instructions meant to counter and neutralize the reproductive apparatus, and then dismantled" (256).

Cadigan gives "the system" a degree of agency, but this characterization is merely metonymic, standing in for a series of programs, subroutines, applications, rules, operations, and procedures. The novel represents the network, aesthetically, through what I call a *protocol perspective* that circumvents any human consciousness. Galloway defines "a computer protocol" as "a set of recommendations and rules that outline specific technical standards."⁴⁴ At the level of coding, network protocol standards "encode packets of information so they may be transported; they code documents so they may be effectively parsed; they code communication so local devices may effectively communicate with foreign devices."⁴⁵ In *Synners*, this type of protocol logic takes on an aesthetic dimension. Indeed, this way of thinking is not limited to the technical standards of the Diversifications system, which inadvertently

⁴⁴ Alexander Galloway, *Protocol*, 6.

⁴⁵ *Ibid.*, 7.

assimilates the catastrophic virus. The human characters in the novel also depend on protocols that enable them to perform social, cultural, and technological hacks of the power structures that shape their existence.

Synners uses its protocol perspective to invert the oppositional individualism that drives cyberpunk novels like *Neuromancer*.⁴⁶ Access to a comprehensive vision of a technological sublime that animates Gibson's aesthetics cedes to a perspectival partiality. In *Neuromancer*, Case's cyberspace vision is "spherical, as though a single retina lined the inner surface of a globe that contained all things, if all things could be counted" (249). Case achieves a vision of totality by connecting to cyberspace. By contrast, Cadigan's formal experimentation leaves her text oscillating between multiple network nodes. Instead of an omniscient individual vision in which "all things could be counted," *Synners* adopts a network view that is fragmented, incalculable, and inherently incomplete.

Cadigan's protocol perspective reflects a more complex understanding of networks than first-wave cyberpunk, especially in its treatment of the cultural fears associated with networks. *Synners* still explores the fear generated by technological

⁴⁶ *The Matrix* trilogy offers several interesting instances of anthropomorphized protocols, including Agent Smith, the Oracle, and several rogue programs that resist the central architecture of the Matrix construct. While these characters explore different attributes of networks, they more frequently serve as allegories for the human condition and, more specifically, human obsessions with control and freedom. *Synners* (as well as Marge Piercy's novel *He, She, and It*, which I analyze in the penultimate section of this chapter) is more committed to exploring the parameters of nonhuman subjectivity.

interconnection, but it does not treat networks as externalized threats. Instead it characterizes network terror as intrinsic to the form itself. The dataline network meltdown that accompanies the introduction of socket technology — a process that begins with Diversifications' thoughtless marketing of sockets as an entertainment tool — demonstrates that disconnectivity and breakdown are foundational components of our interconnected era. In its representation of the systemic viral proliferation, the novel stages the terror that accompanies network malfunctions. The text plays with and interrogates competing metaphors of network catastrophe at several stages of the digital epidemic.

When it first appears, the novel's network threat appears to be externalized in the form of a malignant computer virus. Virtual Mark offers the following frantic explanation regarding the coming socket disaster, "The old meat's gonna stroke out big, and if the Big One gets up the wires into the system, it's all gonna stroke out, it's gonna eat the system alive and everyone connected to it.... You got that? A *conscious stroke*, a fucking *virus*, are you with me yet?" (309). As Mark predicts, his stroke is the catalyst for the major crash of the GridLid traffic system and the main dataline network. Of course, the metaphors that Mark uses to frame his prophecy are far from arbitrary. The terrifying system stroke is characterized as a "conscious" agent that will "eat the system alive and everyone connected to it." Initially, Mark treats

the virus as a terrifying entity that aims to invade and infect the network: a horror movie monster that obliterates anything in its path.⁴⁷

The protocol perspective of *Synners* complicates Mark's initial description of the imminent catastrophe. While the virus is a threat, Cadigan does not represent it as a unified aggressor. The virus is never stable. As a network entity, it mutates as it spreads, altering the identity of the entire web in the process. One metaphorically fecund passage explains, "It came as a small tremor followed by an instantaneous jump in the level of every infection. As if a loose infestation of rats had suddenly been transformed into a battalion of terrorists. The intelligence that drove it was different from [Mark's] own, brutish in some ways but with the sophistication of an evolved mechanism capable of adapting itself at will" (329). Since the novel's dataline network links all of its human and technological nodes, a change in the network is capable of causing "an instantaneous jump" that changes the infection it carries in every node. The virus is still anthropomorphized as "brutish," but overall, it is far from human. The virus's collective status — the metaphorical transformation from "a loose infestation of rats" to "a battalion of terrorists" — already implies the

⁴⁷ In fact, the horror film aesthetic is both employed and parodied in an extended passage in which Mark finds himself able to take over any socket body, converting it into a temporary zombie avatar. Rather than focusing on a single monster figure, however, this passage, during which Mark extends his reach, demonstrates the ubiquity and the extensive reach of networks (342).

emergence of a nonhuman consciousness. These metaphors translate a single entity into a multitude that operates according to an unrecognizable logic.

It is historically significant that Cadigan describes the spreading network crash, at first, through the metaphor of an “infection” and, later in the process, as “a battalion of terrorists.” Galloway shows that the metaphor of a digital virus originated in the AIDs culture of the 1980s.⁴⁸ By the 1990s, however, when fears began to shift from the computer virus itself to the virus’s programmer-author, this disruptive entity was framed increasingly as a terrorist tool. The perception of computer viruses produced by hackers shifted, over time, from neutral entities that served as exploratory mechanisms, in the 1960s, to illegal though minor crimes, in the late 1980s, to hard crimes by the late 1990s (Galloway 178-84). *Synners’* network aesthetic serves to deconstruct precisely this metaphoric series, demonstrating how the systemic shortcomings of networks cede to narratives about external infections and malevolent hackers. As a young Mimosa hacker explains during a news interview, “Every freakin’ time something goes wrong, people say, ‘Oh, must be some hacker doing the virus thing again.’ They like to blame us for all their problems. Prolly the software just gave out all at once.... Yeah, you mainstreams, you straights, none of you maintain your software *or* hardware like you should”

⁴⁸ For a history of viral metaphors and the role of the virus as a threat to the circulation of information, see *Contagious* (Wald). For a more specific history of the computer virus, see *Digital Contagions* (Parikka).

(318). As the reader already knows, it is the profiteering of Diversifications Inc. and its unethically premature release of the socket technology that is responsible for the system crash. The hackers who are scapegoated for “the virus thing” — marginal figures that are contrasted with “mainstreams” or “straights” — are not to blame.⁴⁹ While the exploits of the hacker community stand in synechdocal relation to the network threat, the criminalization of these actors covers up the more complex realities of an interconnected world.

In *Synners*, the network catastrophe is not the product of a single virus or a solitary actor. Art Fish realizes that the complexity of the technological disaster disrupts the very possibility of naming it. Art stumbles clumsily, attempting a description: “It’s *not* just an infection. It’s not a virus or a bomb, it’s — I don’t know what to call it. A hot flash and a meltdown, a whack in the head with a spike” (357). While Art struggles with an adequate description for the impending collapse, Mark, who is gradually fusing with the dataline, develops a clearer understanding of the underlying problem. It is the state of the network, as such, rather than some threatening anomaly or enemy disruption that has made possible this cataclysmic crash:

⁴⁹ The distinction made between dangerous hackers and victimized mainstream “straights” foregrounds the novel’s extended analogy to perceptions surrounding HIV transmission in the 1980s.

He'd had no idea there was so much infection floating around in the system, coming in, going out, drifting like ocean-going mines or sitting camouflaged in various pockets and hidey-holes. What he had sometimes thought of as the arteries and veins of an immense circulatory system was closer to a sewer. Strange clumps of detritus and trash, some inert and harmless, some toxic when in direct contact, and some actively radiating poison, scrambled along with the useful and necessary traffic.... There was an ecology here, gradually becoming more and more unbalanced, polluted, and infected. Ecological disaster had been inevitable, even before the stroke had been released into the system; there was no way around it. It would be universal. Computer apocalypse, a total system crash (324).

This passage uses network metaphors to signal an epistemological paradigm shift away from individualism. It envisions a vast interdependent system that has grown sick. The network that seemed to operate like a "circulatory system" is compared here to a "sewer" overrun with "clumps of detritus and trash." The greatest contemporary threat is not a terrifying virus that infects an already-existing network. The fundamental threat has little to do with cyber-terrorist hackers hoping to crash the system. Instead, with increased interconnection, comes the risk of a global "ecology" that grows "more and more unbalanced, polluted, and infected." This systemic muddle is the result of numerous factors, but as the novel suggests, the problem stems primarily from capitalist interests that privilege immediate profit margins over the social well-being. Corporations such as Diversifications, Inc. are simply uninterested in the delicate social, political, economic, technological, and environmental balance that is necessary to keep a network ecology stable. *Synners*

suggests that, in a network era, social decay originates in unstable systems. Much like the military-industrial-entertainment complex of multinational capitalism, the novel's extensive dataline is a global phenomenon. As a consequence of rapid and unchecked growth, this system comes to collapse under its own weight, beginning in L.A. and spreading around the world (321).

Interconnection in *Synnors* is a complex state characterized by physical complications and ethical contradictions. Unlike Gibson's romanticized simstim technology, which allows one person to experience another's consciousness through a direct neural link, Cadigan sees connections between individuals as intrinsically unstable. For all of its wonder, the socket technology is linked to strokes, seizures, multiple sclerosis, and other neurological disorders (296). In sharp contrast to *Neuromancer*, a direct socket connection between neural networks turns out to carry numerous risks (130).⁵⁰ For example, when two programmers create a direct interface between each other's brains, they die instantly from a shared stroke (275). As Travis, a socket developer, explains, "Another person's mind can be an alien

⁵⁰ In both neuroscience and philosophy of mind, the brain has been discussed in network terms. Francisco J. Varela, Evan Thompson, and Eleanor Rosch offer a particularly useful overview of this neural model of "emergence" or "connectionism" in *The Embodied Mind: Cognitive Science and Human Experience*. These authors discuss the brain as a collection of multiple interconnected networks. As applications of emergence theory to the brain suggest, "the entire system resembles a patchwork of subnetworks assembled by a complex process of tinkering, rather than a system that result from some clean, unified design" (105). For an earlier discussion of neural networks in media theory, see Marshall McLuhan's *Understanding Media; The Extensions of Man*.

thing, if you approach it just right. Or just wrong" (276). Investigating the fatal connection, he discovers that interconnection can be a dangerous matter: "The fact is, I can't tell you what it was. Global malfunction. Intercranial meltdown. System failure. Their brains just... *went*" (276).

In place of the conventions of the adventure genre, Cadigan's fiction explores a more profound unknown — the unmapped topology of relations between self and other.⁵¹ *Synners* not only renders an intricate picture of contemporary network structures but also reframes human interactions in network terms.⁵² Throughout the novel, it is not individual agency, but the interfaces among human characters that become the central object of Cadigan's interrogation. As one description of the motley group of hackers demonstrates, "They could have been in the middle of the genuine apocalypse, and they'd still be trying to figure out their relationships" (376). Cadigan does not romanticize human complications. She imagines these relations as webs of interconnected nodes: linked points that affect and are affected by technological networks.

⁵¹ Again, I draw this argument from E.L. McCallum who argues that Cadigan's earlier novel *Mindplayers* enacts a "radical shift of terms from a win/lose attitude to an apprehension of the relation between self and Other" (374).

⁵² At times, the nonhuman elements that the novel represents become folded back into the parameters of human subjectivity. After the crisis is averted, human issues take center stage. Sam, who has had her heart broken by Fez, tells her father: "I've got a hack for anything. Any program anywhere. Even that fucking spike, I hacked that. But I got no hack for this" (433). Here, engaging in human interactions is treated as a greater challenge than facing a toppling network. Nevertheless, the novel also complicates humanism and anthropomorphic representation.

3.4 Imminent Immanence: Redlining Capitalism in Walter Mosley's *Futureland*

While Pat Cadigan's *Synners* explores the effects of technological and interpersonal ecologies, Walter Mosley's cyberpunk-infused *Futureland: Nine Stories of an Imminent Future* (2002) turns to the underlying economic and political foundations of computer networks.⁵³ This speculative fiction story collection examines the ways that new technologies reconfigure social systems plagued by poverty and racial discrimination. Through a series of aesthetic and narrative techniques, this text interrogates the networks of power that produce an atmosphere of terror in the era of multinational capitalism. Mosley does not use fear merely as a method of building narrative suspense or, like many science fiction texts, a means of gesturing toward an underlying conspiracy. Instead, he characterizes terror as a distributed social affect that emotionally marks the tyranny of an unchanging status quo, complicating or even preventing connections between frightened individuals.

Futureland is a collection of short stories that paints a picture of a near-future dystopia.⁵⁴ Instead of offering nine discrete tales, Mosley's vision unfolds over multiple narrative nodes that combine to depict a vast social network in which

⁵³ Despite the popularity of his East Rawlins crime novel series, which focuses on working-class African American characters in the Watts neighborhood of Los Angeles, *Futureland* has received the least critical attention of any of the texts covered in this chapter. While scholarly criticism on the book has been limited, Sandy Rankin offers an extended reading in her essay "The (Not Yet) Utopian Dimension and the Collapse of Cyberpunk in Walter Mosley's *Futureland: Nine Stories of an Imminent World*."

⁵⁴ The stories are set roughly between 2024 and 2055.

characters or events from one story show up at the periphery of others. This fictional world is made up of a web corporate greed, widespread poverty, mass starvation, a machine-automated legal system, a corrupt prison complex, global conspiracies, and persistent racial inequality. As one character puts it, “The world is going in the wrong direction. Our judges are machines, our prisons and military and mental institutions and workplaces are planning to mechanize their human components with computerized chemical bags. The spirit is being squashed for the sake of production and profit. If we don’t do something the race itself will become a mindless machine” (334).

Throughout *Futureland*, Mosley explores race, class, and gender relations in a world run by technocratic corporations that reduce the poorest segments of the population to capitalist wage slavery.⁵⁵ As the cumulative dissatisfaction of the characters grows, the world moves closer to complete catastrophe. The text is unquestionably dark, but it is far from nihilistic. Each protagonist stands in some oppositional relation to the corporate powers that govern his or her world.

⁵⁵ The analogy between the exploitation of labor and slavery recurs throughout *Futureland*. M. Akwande notes regarding the inequality of the future system, “This world was set when they dragged the first African into a slave ship” (85). Similarly, the desire for escape from the capitalist system is likened to the desire for freedom from slavery. In the story “Whispers in the Dark,” when the young Ptolemy Bent understands the threat of the state separating him from his family, he suggests to his uncle, “We could run.... We could go in the swamps like them slave men you said about” (10). As part of his cultural education, Chill tells Popo stories about African-American history and “runaway slaves on the Underground Railroad” (10). Throughout the story, Popo becomes obsessed with the concept and possibility of “freedom” (26).

Revolutionary anarchists, resistance organizations, disgruntled prisoners, and dissatisfied workers fill the pages of *Futureland*. The female boxer Fera Jones transcends assumptions about physicality and gender to become the undisputed boxing champion of the world, using her subsequent athletic fame to run for public office and fight for justice. M. Akwande, the co-leader of the Sixth Radical Congress, risks his life to preserve the rights and survival of the worldwide African Diaspora. The hacker Vortex 'Bits' Arnold destroys the intercorporate council of economic affairs database because it violates property rights around the world. As opposed to the type of generalized oppositional impulse that governs a novel such as *Neuromancer*, the struggles of Mosley's characters are historically specific and materially grounded. Their battles are waged against gender inequality, racial discrimination, and economic exploitation. In the end, despite their varied grievances, several characters even come together in a global hacker network constructed by the genius Ptolemy Bent.⁵⁶

As its subtitle suggests, *Futureland* is a vision of an "imminent future." Even so, it is equally invested in portraying an *immanent present*: a contemporary state of

⁵⁶ *Futureland* explores the intersections between numerous social categories. Nevertheless, concerns of race weave through all of the stories. As the character M. Akwande puts it, "Generations of political struggle hadn't been enough to fully liberate his people. The weight of poverty, the failure of justice, came down on the heads of dark people around the globe. Capitalism along with technology had assured a perpetual white upper class" (75).

embeddedness across global networks. Mosley represents and imagines a number of new technologies, but it is the social networks of the present and future that are his primary concern. The collection does not figure networks as frightening threats that menace human beings from the outside. Instead, it delves deeper into the alarming foundations of the postmodern social order. Along its imaginative peregrinations through a future world, the text depicts the present-day asymmetries that have served as the real sources of persistent terror since World War II. In this section, I focus on two of Mosley's tales, "Little Brother" and "En Masse," that best elucidate the intersection between computer networks and social terror.

In "Little Brother" — a title that plays on Orwell's *1984* and its infamous dictatorial "Big Brother" — the black protagonist Frendon Blythe is put on trial for the murder of a white police officer and the assault of the man's partner. Blythe is brought before the newly constructed automated legal system: a computer network that combines judge, jury, and executioner. This "Court" program is composed of "an amalgam of various magistrates, lawyers, and legislators created by the biological linkage and compression system to be the ablest of judges" (223). The network is programmed to evaluate conclusions drawn from "thirty or forty *conversations* held by field court reporters" with "eyewitnesses, character witnesses, officials who have dealt with the defendant, and the arresting officers" (222). Blythe,

who understands the danger of this automated system, shares the following fearful scenario with the only human guard present at his hearing: "Once they automate justice and wire it up there won't be any more freedom at all. They'll have monitors and listening devices everywhere. One day you'll be put on trial while sleepin' in your bed. You'll wake up in a jail cell with an explanation of your guilt and your sentence pinned to your chest" (228).

Blythe refuses to submit to the flawed justice of the system, which despite its promise of objectivity, presumes the guilt of the accused. Through an extended conversation with the program — a Socratic dialogue conducted with the networked Law — he attempts to subvert the justice network through a careful disruption of the system's logic.⁵⁷ Since Blythe cannot afford a human council, he refuses the computerized court-appointed defense lawyer and launches a self-defense that has been orchestrated in order to challenge the mechanized system.⁵⁸ Rather than relying on the master's tools, the protagonist employs a more subversive approach to dismantling the master's control network. He explains:

⁵⁷ In particular, Blythe's conversation with the automated "Court" parallels Plato's dialogue "Crito" in which Socrates stages a conversation with the anthropomorphized Laws of Athens.

⁵⁸ When the Court network initially informs Blythe that he cannot represent himself because he lacks the proper legal education, he justifies his self-defense with his intimate knowledge of the legal system. As he puts it, "The slave studies his master" (224). The story further indicates that Blythe has "studied tirelessly... how to circumvent legal conundrums and maintain his freedom" (226).

My argument is based upon actions taken by myself and subsequent reactions taken by the legal authorities which were the cause of the so-called crime. In order to understand these reactions The Court must first understand the motivations which incited them. Therefore The Court must have an understanding of me which is not genetically based, and that can only be gleaned through personal narrative (230).

In response, the Court system explains that “narrative evidence is the weakest form of legal defense,” but nevertheless permits Blythe to continue. The defendant responds by foregrounding his experiential narrative strategy — a move that serves as a self-reflexive gesture toward Mosley’s own mode of politically motivated storytelling. He argues, “It is evidence. The kind of evidence that your AttPrime software would never even suspect, the kind of evidence that all the thousands of minds that comprise your perfect logic would never know” (232).

Blythe’s central argument depends on a distinction between two types of networks: the computer network established to maintain a legally sanctioned mode of justice and the more pervasive social network that requires a radical rethinking of the fundamental concept of justice. In his defense, Blythe produces a narrative simulation of both the boredom and terror that accompany the abject poverty of the segment of society labeled “White Noise.” An earlier story explains, “White Noise kids, the children of unemployable Backgrounders, lived under the city, in Common Ground” (48). Common Ground is “a section of every city in the world; the place where unemployed workers have to go when there is no other refuge” (63). White

Noise individuals — “backgrounders” who are frequently people of color — live at the periphery of Mosley’s imagined world and are forced to reside permanently in Common Ground without the prospect of ever returning to the labor cycle (52).

While they are guaranteed a daily meal of rice and beans, they experience their base survival in this underground slum zone as a living “hell” (143). Plagued by crime and violence, Common Ground resembles a cross between a segregated housing project and a low-security prison.⁵⁹ Blythe himself has lived his entire life as a “White Noise” kid. As he contends, the system that produced him, which is both literally and figuratively founded on the underground Common Ground, produces terror and gives rise to widespread crime. As a result, the effects that the legal network criminalizes and seeks to punish are not excessive transgressions of the law, but inherent aspects of it.

Blythe’s defense strategy attempts to interpellate the technological Court and provoke a sense of empathy within it. With a single question, he reveals the gap between his own life experience and that of the allegedly omniscient Court intelligence: “Have you ever experienced what it is like to be White Noise, The Court?” (231). By means of his narrative, Blythe contends that the system cannot make a just ruling because “you and your fictional elements have no notion of the

⁵⁹ In a later story, Blue Nile contends that Common Ground is no better than a “corporate prison” (271).

lives led underground” (231). What emerges from Frenon’s defense is a complex profile of a psychological life produced by profit-driven capitalist networks. For the White Noise individual, life is an oscillation between boredom and terror (232-3). This meaningless and fearful existence spurs a desire for defiance. It impels actions that, regardless of their legality, might yield alternatives to a functional life sentence in Common Ground: “I was so bored that I started to wonder about politics. I wondered if we could make some kind of action that would close the Common Ground down. I started talking about it, to my friends at first and then to anyone who would listen. ‘Come join the revolution,’ I said to them. ‘Let’s burn this fucker down’” (235).

The legal network that Frenon confronts claims virtual omniscience and objectivity, but it proves lacking in the area of affective information. With the introduction of a new type of data, Blythe sends the system into “a justice loop” that disrupts its usual operations (227). Through what amounts to a narrative hack, Frenon manages to “defy the logic matrix” (233). As the system explains through a collective enunciation, “There is doubt among us. We have convened for long moments. New circuits were inhabited and long-ago memories stirred. We are sure that you are guilty but the law is not certain. Some have asked, therefore, Who are we?” (239). Blythe watches silently “in awe at the sight of this crisis of law” (239). As

the system informs him, “you have elicited an emotional response from Prime Nine that has overflowed the parameters of this case. All extraneous details have been redlined” (240).

The network’s action at the story’s climactic moment is telling. The machine kills Blythe and incorporates his personality into its central decision-making matrix, but before continuing with this standard course, the details of his narrative — inassimilable because their acceptance would invalidate the entire system — are “redlined.”⁶⁰ The polysemy of the word “redlined” is worth noting. In the context of the legal computer system, there are two primary connotations. Redlining describes the computer science practice of highlighting already-edited code. The word also refers to the practice of editing legal documents in which added and deleted content is marked through red underlining. In this case, Frendon’s narrative is deemed “extraneous” and “redlined” by the network computer, but nevertheless noted.

In addition to these two surface meanings, however, there are two other connotations of “redlined” that speak to the deeper dynamics of the story’s proceedings. Given the economic and racial prejudice that Blythe has suffered throughout much of his life, the network’s decision to have his narrative “redlined”

⁶⁰ The details and outcome of Blythe’s case at times parallel the 1857 Supreme Court case of *Dred Scott v. John F. Sandford* in which an enslaved man, Scott, argued for his freedom. His defense was found structurally invalid, however, and he was forced back into slavery.

summons the discriminatory redlining practices in which loans, mortgages, or services are refused to populations based on their social standing. Given his White Noise status Blythe has been kept in poverty precisely by being refused access to employment or private property. The final connotation of the word that resonates in this passage has to do with velocity. In addition to its other meanings, “redlining” can refer to the attainment of the highest engine speed at which the mechanism can safely function. This sense of an operational limit is especially evocative in the context of the network’s pronouncement at the end of “Little Brother.” Through his problematization of justice — a maneuver that shifts focus from a single criminal act to the structural injustice of the system itself — Frenson has managed to push the law to its functional limit and call an unjust system into “crisis.”

Appropriate to its commentary on repressed social structures, Mosley’s story ends with an epilogue that depicts a haunting systemic return. Years after Blythe’s death, an emergent network comes back to threaten the man, a wealthy executive known as the Dominar, who we discover exploited Blythe’s boredom and put him up to the self-defense that resulted in his physical death. Over years of internal reconfiguration, the computer network has grown distributed, indestructible, and global. As it announces to the Dominar, employing the collective of the first-person plural, “We’re out here somewhere you’ll never know” (243). While the tale ends

with a fairly standard science fiction evocation of an evolved network that threatens human life, Frenon Blythe's preceding defense complicates this conventional narrative development. The malevolent network that closes the story is not an arbitrary formation, but the haunting residue of a system that oppresses marginalized "backgrounders" like Blythe. More importantly, at the moment of its materialization, the vengeful network that intimidates the Dominar proves far less frightening than the social reality that Blythe's narrative reveals — the terror of a capitalist system that abandons and persecutes masses of marginalized people.

Mosley's "Little Brother" draws liberally from African American pulp fictions as well as literary texts such as Richard Wright's 1940 novel *Native Son*. Wright's text does not employ network aesthetics in the specific formal and historical sense that I understand them in this dissertation. Nevertheless, that novel already suggests a social ecology of oppression that Mosley later recasts using network metaphors.⁶¹ *Native Son* tells the story of Bigger Thomas: a 20 year-old black man living in Chicago's South Side ghetto in the 1930s. After killing the daughter of Mr. Dalton — a wealthy real estate owner — and his own girlfriend, Bigger is arrested. Following a corrupt trial that is punctuated with an impassioned political plea by his Jewish

⁶¹ *Native Son* prefigures the modern network age, but the language of systems and machines is already key to its figurative economy. For example, during his trial, the protagonist's name is pronounced "over and over again and Bigger felt that he was caught up in a vast but delicate machine whose wheels would whirl no matter what was pitted against them" (Wright 370).

lawyer, Boris Max, Bigger receives the death sentence. *Native Son*, with which Mosley's tale shares many elements, explores the social, economic, and political system that made violence one of the few self-affirming choices available to a poor black man living in 1930s Chicago. Similarly to Frendon Blythe, Bigger Thomas's segregation from mainstream society leaves him bored, scared, and angry: "These were the rhythms of his life: indifference and violence; periods of abstract brooding and periods of intense desire; moments of silence and moments of anger — like water ebbing and flowing from the tug of a far-away invisible force" (Wright 29). Wright does not reduce Bigger's murders to an anomalous act of illegality, but links them to "the complex forces of society" (382). His acts are ultimately symptoms of "our whole sick social organism" (383).⁶² In Mosley's futuristic update of Wright's parable, Blythe's crime similarly defies comprehension until a myopic evaluation of particular acts is supplanted with an understanding of the larger networks that undergird contemporary life.

If "Little Brother" explores the social and legal effects of computer networks, Mosley's story "En Masse" — a novella-length cyberpunk narrative that draws

⁶² In another story in *Futureland*, "Angel's Island," a conversation between a white fascist convict (Stiles) and a black prisoner (Bits) suggests that the crimes of capitalism are deeper than those of any individual. With racist anger, Stiles accuses Bits, "It's you who took our good white world and made it into a mess. Raped our women, stole our jobs." Bits, however, "knew that crime by blacks against white was negligible compared to the crimes committed by universities and corporations" (115).

many of the connections among *Futureland*'s nine stories — exposes the affect of terror that pervades these social control networks. The protagonist of the tale, Neil Hawthorne, spends his early life as a simple “prod” who works mindlessly on an assembly line.⁶³ After years of terror at the prospect of being sent back to the unemployment of Common Ground, Hawthorne develops an acute nervous condition. His fear of becoming a backgrounder grows so overwhelming that he begins to prefer the prospect of suicide to the possibility of being returned to the living hell of Common Ground. As the story begins, Hawthorne is unexpectedly transferred to a new work unit, GEE-PRO-9, which practices a more flexible labor protocol and fosters worker creativity in crafting new technologies.⁶⁴ Neil quickly discovers that his new unit is not officially sanctioned by the mega-corporation for which he works: General Specifix.⁶⁵ In fact, the company does not even know about the existence of GEE-PRO-9. The renegade production unit, which secretly recruits “prods on the margin,” forces Hawthorne to undergo a difficult rite of passage (270).

⁶³ Given the sense of terror and paranoia that pervade this story, it is appropriate that Neil's last name alludes to nineteenth-century American novelist Nathaniel Hawthorne whose work extensively explores these affects.

⁶⁴ “En Masse” doesn't criticize labor as such, but simply labor that is destructive of creativity. Unlike numerous anti-corporate slacker texts (including contemporary comedies such as *Office Space* and *Slackers*), this story doesn't take an over-generalized pro-slacker position. For an extended critique of the slacker theme in recent technological films and literary works, see Martin Kevorkian's chapter “Techno-Black Like Me” in *Color Monitors* (115-39).

⁶⁵ As the oxymoronic name of his employer “General Specifix” suggests, the system is founded on countless operational contradictions (288).

In order to remain with the group, he must illegally erase his old work file, which reveals the corporation's diagnosis of his nervous condition and its intention to send him back to Common Ground. Given a history of obedience and fear, Hawthorne struggles with the prospect of breaking the law. Eventually, however, he removes his record and frees himself of the system's influence.

Unlike Frendon Blythe, who has spent his entire life as White Noise and finally reaches a destructive point beyond fear, Neil Hawthorne lives in a perpetual state of agitated terror. The object of his fear is simply "the corporations" and "the madmen who run 'em" (298). Hawthorne's deep understanding of the unjust socioeconomic system fills him with panic. At one point, he believes that "armed security guards would come out from some secret doorway and drag him away to a private prison without even a trial" (289). Hawthorne's paranoia produces physiological symptoms, including fainting spells, which if discovered and diagnosed as "*Labor Nervosa*," result in permanent unemployment according to officially company policy (246). In one passage, when a fellow GEE-PRO-9 employee gives him an all-access system card that he suspects to be illegal, Hawthorne nearly passes out, holding it with "trembling fingers" (267). After using the access card, "He knew that any minute he'd be arrested for illegal access, for using an

unauthorized identity card, for being in the presence of tobacco use, for failing to report his own *Labor Nervosa*" (269).

Mosley explores Neil's workplace fear in a futuristic setting permeated by computer networks, but the protagonist's anxiety captures an affect that has been a very real part of American life since at least the Industrial Revolution. Political scientist Corey Robin traces this type of fear over the last fifty years:

Whether in the contemporary workplace or during the Cold War or today's war on terrorism, fear has undermined liberal commitments to freedom and equality, empowering some of the most revanchist, conservative forces in American life. From white racists during Jim Crow, who used fear to keep civil rights out of the South, to congressional conservatives and J. Edgar Hoover during the McCarthy years, to union busters over the last fifty to one hundred years (250).

Robin concludes that the greatest dread of the postwar era has had less to do with Communist incursions or terrorist attacks than with the daily pressures of working within a late capitalist system: "If we are to confront Fear, American Style, it is here, in the workplace, that we must begin and end, for it is in the workplace that men and women in the contemporary United States most consistently encounter personal coercion and repressive fear" (228). Mosley's "En Masse" perfectly exemplifies the driving fear of late capitalism that Robin has in mind. The system that reduces Neil Hawthorne to a bundle of terror operates according to a cyclical catch-22 logic that dooms the common worker to inexorable failure. The volatility of the employment

cycle is precisely what produces Hawthorne's *Labor Nervosa* in the first place. Ironically, however, the suggested treatment for *Labor Nervosa* is "permanent unemployment," thereby perpetuating an inescapable cycle of terror (273).⁶⁶ In this way, the condition of *Labor Nervosa* is not merely an atypical abnormality, but a psychosomatic manifestation of the systemic terror that drives economic growth and corporate profit.

Mosley's aesthetic techniques render several different types of computer networks. Both the onset and resolution of Neil Hawthorne's fear are linked to network structures. During his time in the rogue production unit, Hawthorne learns that the leader of GEE-PRO-9, the remote figure known as "Un Fitt," is not merely a revolutionary, but an oppositional computer network. Shortly after Neil's breakthrough, authorities discover the renegade cell. During an escape, Hawthorne meets the infamous genius Ptolemy Bent, the original architect of the Un Fitt system. In a closing sequence, the members of GEE-PRO-9 who manage to evade arrest confront a fascist group known as the International Socialists who are "designing viral strains that target racial indicators" (335). While Hawthorne stops the virus

⁶⁶ In other stories, *Futureland* figures the fear felt by Backgrounders and impermanent workers as a kind of trauma. Folio Johnson, for example, reflects on "the trauma of ex-Backgrounders, especially those who'd spent their entire lives underground. They feared the loneliness of a full-size room" (167). Later, when a club bouncer holds his precious identity card, Harold Bottoms "felt panic in his chest and across his brow" at the possibility of losing the card and being sent back to Common Ground on an unemployment cycle (353).

from being spread by forcing it to mutate, he is shot and forced to fuse with Un Fitt in order to survive the death of his body (343).

The climax of the story relies on several types of networks. While one network of surveillance and control produces Hawthorne's terror, another network helps him overcome that fear. Un Fitt is a "self-altering" and distributed computer web that poses a challenge to the viral network engineered by the International Socialists and the dominant corporate order that runs on its own system protocols (331). This sentient computer being, powerful as it might be, nevertheless requires the support of Bent's human resistance network. It is this collective — this tightly knit community — that offers Hawthorne an alternative to his anxiety-ridden existence. Through a connection with other people, something he has never had in his life, he develops a sense of belief. He tells his friend, lover, and fellow GEE-PRO-9 member Nina, "I never believed anybody before. Nobody. Not my mother, not my friends." When asked whether his newfound belief is a good thing, Hawthorne responds, "In my head it is. But in my heart I'm more scared than if you buried me alive" (288). The belief in another human being and the possibility of connection induces fear.⁶⁷ Nevertheless, this fear does not paralyze Neil. It endows him with a

⁶⁷ Part of Hawthorne's fear, during this transformation, has to do with a clearer understanding of the system in which he has participated his entire life. This type of fear is more productive than the aimless terror that Neil experiences in the workplace. As Folio Johnson puts it in an earlier story, "Fear is the tenth

newfound sense of agency. The realization of interconnection and the ability to resist the system that has stripped him of his personhood puts Hawthorne in a position where, for the first time, he “thought about dying without fear or trepidation” (281).⁶⁸

The fear that continues to inform Hawthorne’s thinking when he joins the Un Fitt resistance network is a productive worry about a new life that entails real choices. As he admits, “I’m scared. Really scared. I’ve never been anything but a prod” (275). The anxiety about uncertain freedom and change that surpasses the capitalist obsession with profitable newness is best expressed in a monologue delivered by Ptolemy Bent:

To advance. To change. The way the world is today, change has become a function of profit. Money makes change. There’s very little of the individual left. Our minds are made to stagnate, our bodies are fuel for the systems of production. Maybe some of that is good. But then again maybe it isn’t. What Un Fitt and I are trying to do is create revolutionaries, people who aren’t satisfied with just being prods (332-3).

intelligence quotient. All the scientists say so. The more you’re scared of what can hurt you, the smarter you are” (135).

⁶⁸ Neil’s empowering traversal of fear in “En Masse” resembles “the thrill of fear and excitement” that Frendon Blythe feels in “Little Brother” during his attempt to defy the automated legal network (237).

In place of the networks that serve an inhuman system of capitalism and disconnect people from one another, Bent establishes a network predicated on human association.

At a formal level, the plot connections and shared political agendas of the characters that make up *Futureland* give readers a different understanding of networks. Even as they follow distinct narrative trajectories, Mosley's nine protagonists share histories, fears, and even dreams. The technological and social networks that they form offer an alternative to those dystopian structures that ensure the continued dominance of the powerful and the wealthy. Through narratives, including those of Frendon Blythe and Neil Hawthorne, *Futureland* disrupts the "perfect logic" of supposedly omniscient control networks. These fictions gesture toward a type of interconnection that facilitates the emergence of a justice only attainable in the absence of widespread terror and capitalist exploitation.

3.5 "Company Justice": Nets and Networks in Marge Piercy's *He, She, and It*

Despite the fears that accompany the technological restructuring of computer networks, these structures also serve as material metaphors for new types of community. As in *Synners* and *Futureland*, the social connections forged in response to exploitative systems of power become a central concern of Marge Piercy's 1991

feminist cyberpunk novel *He, She, and It*.⁶⁹ In a near-future 2059 dystopia, the world is divided among multinational corporations (“multis”) that establish cruel social hierarchies and engage each other in industrial espionage. The protagonist, Shira, works for the North American tech giant Yakamura-Stichen (Y-S) as a network interface specialist. After losing custody of her son, Ari, to her vindictive husband, Josh, Shira moves back to the Jewish “freetown” of Tikva. Upon arriving, she learns that her hacker grandmother, Malkah, has assisted Avram Stein, a famed cyberneticist, in creating a male cyborg. This nonhuman being, Yod, is capable of intelligence, emotion, and self-evolution. As Shira socializes Yod, preparing him to defend their freetown from multis that are seeking to absorb the territory and steal its technological expertise, she gradually falls in love with the cyborg.

Throughout the novel, Piercy punctuates the primary near-future story with a tale that Malkah tells to Yod. At a formal level, this multi-plot technique forges links between different spatial and temporal coordinates, inviting the reader to seek

⁶⁹ Piercy explains, in the acknowledgements section of the novel, that her narrative was influenced by both William Gibson’s cyberpunk futures and cultural anthropologist Donna Haraway’s socialist-feminist essay “A Manifesto for Cyborgs.” In addition to these sources, the novel also draws on socio-political dystopian fiction. Poverty, disease, famine, local conflicts, information warfare, advanced global warming, and the oppressive governance of profit-hungry multis define Piercy’s fictional world. After a terrorist sets off a nuclear device that “burned Jerusalem off the map” during the Two Week War of 2017, much of the Middle East became part of the uninhabitable “Black Zone” (3). In the present, ecological imbalance threatens a dramatic reduction in the global population. Environmental imbalance is further exacerbated by economic asymmetries. A continuous megalopolis stretching between Boston and Atlanta, the “Glop,” is inhabited by unemployed and homeless masses that resort to drug abuse and crime. For those lucky enough to have official corporate positions, life is financially secure, if constantly anxiety-inducing. For everyone else, existence is a constant struggle for survival.

connections among narrative nodes. In this second story, set in the Jewish ghetto of Prague around 1600, Rabbi Judah Loew creates a golem to protect his people from relentless Christian pogroms. Despite the historical shift, the characters and events of this story parallel the primary plot about the creation of the cyborg Yod. This microcosmic historical fiction defamiliarizes the primary setting of the novel — much as the novel itself defamiliarizes our own late capitalist moment — in order to generate greater insight about the central narrative. There are important divergences between these two major narratives, but a number of structural overlaps contribute to a network narrative structure that emphasizes associations and overlaps within a field of difference.

The concern with networks in *He, She, and It* extends beyond its structural composition. Indeed, the computer technology of the “Net” serves as the most multivalent metaphor of the novel. Piercy frames the Net as “a public utility to which communities, multis, towns, even individuals subscribed.” (56). The Net is functionally a more elaborate version of our own internet, offering an information bank, multiple communication modes, and numerous multiplayer games. Instead of interfacing with data on a screen, however, users project directly into the worldwide Net and operate entirely through mental projections that allow them to traverse a shifting metaphorical landscape (142).

Even with its ubiquity, which extends to various multis and communities, the Net takes on a fearful affect. Precisely because of its role as an omnipresent utility and the world's key communications medium, the network is susceptible to infiltration by hostile forces: "Embedded in a base, plugged in, a person was vulnerable to mental warfare. The very neural pathways that the impulses from the machine traveled into the brain could be burned out, the brain rendered passive as a sponge" (144).⁷⁰ As in earlier cyberpunk texts from the 1980s, the possibility of network attack by information pirates and competitive multis imbues the Net with a sense of terror. In one passage, after Malkah is nearly killed by a Y-S virtual attack, Shira "plugged in with a sense of queasiness, the slime of unacknowledged fear," knowing that connection makes her "fully vulnerable to attack" (164). For Malkah, the attack makes her "fear [her] own creativity," which is dependent on the medium of the Net (158).

The constant security threats on the Net are closely linked to the social asymmetries that create a lack of equal access to technological networks. As the main characters discover during a trip to the poverty-stricken Glop, the Net is not as universal as they believed: "It was a truism that everyone was on the Net, although a

⁷⁰ Much like Cadigan's *Symers*, Piercy's novel explores the physical effects that accompany network projection and challenges the mind/body distinction that is assumed in a great deal of earlier cyberpunk fiction and film.

poor child might grow up in the Glop, work for a gang or sell labor to a multi, die of one of the viral plagues that swept the Glop every year, and never once plug in to the Net" (252). The economic inequality that plagues zones outside of multi and freetown territories translates into uneven access to and knowledge of dominant technologies. While the Net is technically a public utility, the leader of a Glop resistance group is insightful in his observation that there are "different publics" (308). Those who are not considered legitimate citizens and economic contributors are disconnected from the social and technological life in which the self-sufficient can participate. If "the ability to access information is power," as the novel suggests, imbalanced access results in imbalanced power (194).

Social inequality produces legitimate reasons to fear the Net, but *He, She, and It* also demonstrates that computer networks have more generative dimensions. Piercy repeatedly reminds the reader that the infrastructure of the Net is not merely a material technology; it is also a polysemic metaphorical figure. The significance of metaphors becomes one of the key themes of the novel. In his early training, Yod struggles to understand metaphor: "This incessant comparing of unlike things in ways that imply some point of similarity is important puzzles me" (89). One of the ways that Yod begins to grapple with metaphor is through the Net interface, which relies entirely on metaphors. "The spatial dimensions of the Net," for example, are

“all metaphorical mental conveniences.” (267). Hackers move “along in the chain of data that appeared in the conventional imagery of the Net as packages whizzing on a very fast conveyor belt” (266). As another passage demonstrates, “Moving about in the Net used different controlling imagery at different times. Lately the Net had been using escalators and moving walkways, so they mounted and moved swiftly into position” (388). Users traverse the Net at a figurative remove much as real-world Internet users do switching among web “pages” and travelling between “sites.” Even hacking becomes a mode of metaphorical warfare. In order to infiltrate the Y-S Base, for example, the protagonists utilize “shape-changing” strategies and “accept [the corporate network’s] metaphors and incorporate them” (271-2).

Users understand, navigate, and interface with networks metaphorically, but Piercy’s point regarding metaphor is more profound. *He, She, and It* shows that networks, for all of their threatening attributes and implied inequalities, can operate as powerful metaphors for new forms of community. Networks, at their best, link different publics, connecting even human individuals like Shira to nonhuman persons like Yod. In this sense, there are two interweaving network metaphors operating in Piercy’s novel. On the one hand, there are terrifying “nets” that threaten to ensnare unsuspecting users and limit their access. On the other, there are open-

ended “networks” that connect people across different times and spaces.⁷¹ For example, Shira has the first, more antagonistic connotation of a net in mind when she has paranoid thoughts about Y-S’s power: “She wondered if Gadi, too, had been caught in their wide bared net? Had he been entrapped?” (282). In this passage, a net is something in which a user can become “caught” or “entrapped.” More connective network metaphors, on the other hand, come up repeatedly surrounding a subplot about the organization of a resistance movement in the Glop: “Out of the welter of drug and slash gangs, a network was springing up of those who wanted to organize the Glop into more than meat territories” (360). Instead of a surveillant “net,” the “network” described here is an emergent structure that is “springing up” to better “organize” the oppressed people of the Glop.

As Fredric Jameson has provocatively observed, “It is easier to imagine the end of the world than the end of capitalism” (*Archaeologies of the Future* 199). The central problem with which *He, She, and It* grapples is precisely this one — whether it is possible to imagine a community that exceeds the dystopian parameters of multinational capitalism. The weird network of motley actors in which Shira

⁷¹ While I am making a different point here, I am indebted to Barbara Herrnstein Smith’s essay “Netting Truth: Ludwik Fleck’s Constructivist Genealogy” (in *Scandalous Knowledge*) for my distinction between different types of “nets.” In this essay, Smith juxtaposes Karl Popper’s philosophical “logic” with Ludwik Fleck’s genealogical constructivism. As Smith writes, “For Popper, the net — an individually conceived conjecture — may *catch* truth. For Fleck, the net — a web of shifting, intersecting, interacting, beliefs and practices — *is* truth” (51).

participates includes family, friends, lovers, augmented human beings, programmed cyborgs, resistance fighters, and freetown citizens.⁷² Unlike the hierarchal multis, Shira's network stretches across categories of race, ethnicity, gender, class, sexuality, religion, and age. Even Yod, a cyborg, is accepted into a social network that was previously made up of entirely human members. From the moment that Y-S takes Ari from her, Shira desperately seeks an alternative community ethic to what she calls "company justice" (16). In place of the corporate legal norms, Shira desires mental affiliation, bodily bonding, and the incorporation of diverse viewpoints. She seeks another type of "company justice" that does not serve inhuman conglomerates, but instead emerges from a broader *company* of interconnected friends. The freetown of Tikva (which means "hope" in Hebrew) becomes one alternate space that enables experimentation with new concepts of community. Tikva is an "oasis of green in the desert the world has become" (18). In distinction to the "patriarchal laws" of the major multis, Tikva is a matriarchal utopia with a foundation of "libertarian socialism with a strong admixture of anarcho-feminism, reconstructionist Judaism (although there were six temples, each representing a

⁷² One of the open questions of the novel is whether a network that is not built on face-to-face relations between members can produce harmonious interactions. As Nili puts it at a more pessimistic moment, "A group is only real to you when you've made friends and put faces on some of them — unfortunately for us as a race" (407). On the other hand, the bottom-up organization of the Glop resistance to the multis seems to take place over a larger geographical area, relying on more remote connections.

different Jewishness) and greeners” (404). In Tikva, “politics was still a participatory rather than a spectator sport” (404).

Even with Tikva’s computer savvy populace and Net-based foundation, Piercy’s novel also gestures toward other types of networks. The augmented human character Nili, for example, belongs to a “joint community of the descendents of Israeli and Palestinian women who survived” a massive nuclear explosion that wiped out much of the Middle East in 2017 (198). These survivors live underground, researching genetic engineering, technological augmentation, and alternative socio-political orders. Unlike the citizens of Tikva, Nili’s community is not connected to the Net. After joining them at the end of the novel, Malkah praises the community: “It is beautiful here, as something destroyed can come into its own new form. Glass cast in the fire can have a strange subtle beauty of fused colors. This desert seems totally inhospitable to life, yet here is this community flourishing.” (420). Even with her substantial admiration for this oasis, Malkah suggests that she will work on a way to “remake” this marginal community by connecting them to a new Net: “They must enter the Net. It is time, with the Glop rising for them to emerge from hiding” (418). Malkah’s suggestion is that in order to be “remade,” a community must establish new connections. While they are never utopian or unproblematic, computer technologies contribute to the formation of social networks. In the end *He,*

She, and It does not solve the larger problems it raises, but it does show that the destruction that capitalist networks have wrought can only be altered through the creation of novel nodes and the redistribution of links that make a more just world order thinkable. Such an order is achievable only in the absence of a politics of terror.

3.6 Utopias, Heterotopias, and Network Topologies

A verdant oasis can sprout up in the harshest desert. A similar desire, a yearning for a fuller life and a better world, drives the dystopian imagination of many cyberpunk works (Baccolini and Moylan 7).⁷³ The Mimosa hacker community of *Synners*, the GEE-PRO-9 unit at the heart of General Specifix in *Futureland*, and the Jewish freetown of Tikva in *He, She, and It* are all visions of alternative enclaves at the hearts of crumbling sociopolitical systems: promising communities that survive in the midst of terrifying dystopia. Cyberpunk works, which oscillate between dystopian settings and utopian impulses, suggest that minor social modifications cannot alter the world. As Ruth Levitas observes, in an essay on utopia, the “transformation of ways of thinking and of being... depends on an alternative *structure* within which another logic of action and understanding makes sense” (in Baccolini and Moylan 19). Given the global dominance of the capitalist system, the

⁷³ As Baccolini and Moylan put it, despite their darkness, “critical dystopias” are able to “maintain a utopian impulse,” even if only in the gap between their diegetic spaces and readerly sensibilities.

imagination of any other structure becomes particularly challenging.⁷⁴ Nevertheless, cyberpunk works by writers such as Cadigan, Piercy, and Mosley demonstrate that the genre is capable of imagining different types of structures. Instead of gesturing toward a utopian *space*, however, these works take their cue from computer networks and envision alternative *topologies*. That is, while these texts experiment with and model different systems, they are less interested in ideal spaces than in the connections among technologies, places, and communities that might give rise to better worlds.⁷⁵ In particular, distributed networks that are founded on trust and a shared desire for freedom make possible radical forms of non-hierarchical organization.⁷⁶ Instead of the standard science fiction fears about hive minds and

⁷⁴ Tom Moylan asks, "In the face of the commodification of everything and the growing suppression of dissent, how can a critical perspective develop?" (in Moylan and Baccolini 236). Similarly, theorist David Harvey argues that alternatives to the status quo cannot be thought without an extensive critique of capitalism: "Any contemporary struggle to envision a reconstruction of the social process has to confront the problem of how to overthrow the structures (both physical and institutional) that the free market has itself produced as relatively permanent features of our world" (*Spaces of Hope* 186). Tony Myers criticizes dystopian cyberpunk precisely for its inability to think through or disentangle itself, even provisionally, from such trappings of capitalism. Gibson's *Neuromancer*, for example, "bears testament to a collective enfeeblement of the utopian imagination" in which we are "inured to the future as much as we are inoculated against the past." (900).

⁷⁵ Certain definitions of utopia already include this focus on alternative connections. See, for instance, Darko Suvin's "Theses on Dystopia 2001": "*Utopia* will be defined as the construction of a particular community where sociopolitical institutions, norms, and relationships between people are organized according to a *radically different principle* than in the author's community; this construction is based on estrangement arising out of an alternative historical hypothesis; it is created by social classes interested in otherness and change" (in Baccolini and Moylan 188). "Utopianism," he explains, "is an orientation toward a horizon of radically better forms of relationships among people" (187). Utopia here is already about different relations and connections. Nevertheless, I argue that the uniformity of utopian visions makes this trope incompatible with a network imagination.

⁷⁶ Real-world parallels to this impulse emerge in attempts to use the internet and other networks to spur new forms of democratic practice.

emergent collective consciousnesses, distributed networks gesture toward interconnected assemblages and generative swarm thought.

The complexity of network organization in the computer era is incompatible with traditional utopian spaces. Classic utopias, from Thomas More's 1517 *Utopia* to William Morris's 1890 *News from Nowhere*, tend to employ a didactic literary style in their depictions of a perfectly functioning fictional space. A future-oriented purity drawn from such models may have driven the techno-utopianism of Silicon Valley engineers and the profits netted by venture capitalists in the late twentieth century, but it does not dominate the alternative visions crafted by that period's most thoughtful cyberpunk writers. Despite their futuristic settings, these fictions struggle with the impurities and asymmetries of the present moment; they do not gesture toward the dreams of the future without working through the nightmares of the past.

The sprawling utopian political fantasies of individual authors rarely convey the disagreements, compromises, and difficulties that accompany most collective transformations. They generally leave the path between present-day dystopia and future utopia uncharted. Certainly, the peregrinations that lead away from the worst possible worlds play a role in determining the parameters of better worlds that exist on the other side of some paradigmatic horizon. Nevertheless, networks and their

accompanying metaphors suggest that a discourse of paths and places might be too limiting. Network topologies produce different diagrams of shifting linkages and forking paths. They open up to multiplicities and differences that nonetheless stand in relation to each other. They remind us that systems are never uniform.

The alternative network topologies in the work of Cadigan, Mosley, and Piercy are not utopias but more closely resemble what Michel Foucault calls “heterotopias.” Unlike tidy utopias, heterotopias are messy. They are other spaces: neither entirely here nor there. In this sense, heterotopias operate according to a network logic. Foucault elucidates the concept in his preface of *The Order of Things*:

Utopias afford consolation: although they have no real locality there is nevertheless a fantastic, untroubled region in which they are able to unfold; they open up cities with vast avenues, superbly planted gardens, countries where life is easy, even though the road to them is chimerical. *Heterotopias* are disturbing, probably because they secretly undermine language, because they make it impossible to name this *and* that, because they shatter or tangle common names, because they destroy ‘syntax’ in advance, and not only the syntax with which we construct sentences but also that less apparent syntax which causes words and things (next to and also opposite one another) to ‘hold together’ (*The Order of Things* xviii).

In his only paper devoted entirely to heterotopia, Foucault explicitly employs network metaphors to introduce this concept: “We are at a moment, I believe, when our experience of the world is less that of a long life developing through time than that of a network that connects points and intersects with its own skein” (“Of Other Spaces 22). Heterotopias are not uniform spaces. As Foucault explains, they are

topologies that point to “a set of relations that delineates sites which are irreducible to one another and absolutely not superimposable on one another” (23).

Computer network fictions, from early speculative fictions to cyberpunk works, are both heterotopic and heterotropic. They represent structures that are material and metaphorical, protocological and discursive, actual and potential. If networks, as heterotopic configurations of thought, are capable of positioning incompatible sites in relation to each other then network fictions do the same by juxtaposing mismatched characters and distinct literary categories. The best of these literary works disturb and defamiliarize our unjust world in order to make other worlds thinkable. Of course, other worlds are unimaginable without a radical relationality — a different sense of community — that is not fostered by late capitalism. Contemporary American culture is still founded on the ideology of individualism and the terror that accompanies social atomization. Network exploits help us achieve a broader understanding of the ways we are connected, as well as disconnected, from one another. While complex network metaphors defy utopian seamlessness, they can nonetheless help us maneuver the current sociopolitical system and reconfigure it, together, from within.

Chapter 4: “White Network”: The Racial Edge of American Power in Thomas Pynchon’s *Gravity’s Rainbow*

It all goes along together. Parallel, not series. Metaphor. Signs and symptoms. Mapping on to different coordinate systems, I don’t know....

— Thomas Pynchon, *Gravity’s Rainbow*

Thomas Pynchon’s 1973 encyclopedic novel *Gravity’s Rainbow* uses an intricately networked narrative to trace the connections between American empire and race in the twentieth century. The novel depicts a vast nefarious network of alliances between nation-states (e.g., the United States, Germany, Britain, and the Soviet Union) and corporate entities (e.g., IG Farben, General Electric, United Fruit, Shell, and Siemens). It channels these shadowy associations through Pynchon’s notorious paranoia, an affect which the text describes as “nothing less than the onset, the leading edge, of the discovery that everything is connected, everything in the Creation, a secondary illumination — not yet blindingly One, but at least connected” (703). Instead of a unified world, *Gravity’s Rainbow* posits an interconnected web of difference. As Leo Bersani contends in his reading of the novel, “The paranoid intuition is, then, one of an invisible interconnectedness” (102). The novel’s conspiratorial speculations do not reveal a global network in its entirety, but they

nonetheless point to the outlines of the complex world system that arose from the devastation of the Second World War.¹

Gravity's Rainbow is considered by some critics to be the greatest American novel of the postmodern era. The book is unquestionably an astounding literary achievement, but it is worth asking at the outset: What does it mean to treat this text as an *American* novel? Given Pynchon's status as one of the exemplars of contemporary American fiction, this categorization may seem self-evident. Nevertheless, this framing of the novel begs a series of larger questions about American nationhood in the mid-twentieth century and the origins of literary production in a purportedly global era dominated by network structures. On the one hand, *Gravity's Rainbow* takes place not in the United States, but almost entirely in Europe, relying on a decidedly international cast of characters. Through a fragmented aesthetic and episodic structure, the novel represents the end of World War II and the beginning of a new era. The narrative takes place between December 18, 1944 and September 14, 1945 — mostly during the period that war has officially ceased in the European theater — and follows a multiparty quest for a mysterious V-

¹ In *Postmodernism*, Fredric Jameson writes, "our faulty representations of some immense communicational and computer network are themselves but a distorted figuration of something deeper, namely, the whole world system of a present-day multinational capitalism" (37). The structure of Jameson's argument proves useful in thinking about *Gravity's Rainbow*. While aspects of the novel's conspiracy theories are too preposterous to be accurate, they nonetheless signal a larger political, economic, and social system that emerged after World War II. For a more detailed theoretical engagement with Pynchon and Jameson, see Jon Simons's "Postmodern paranoia?: Pynchon and Jameson."

2 rocket. Hundreds of characters from the United States (Tyrone Slothrop), Great Britain (Pirate Prentice), Germany (Captain Weissmann), the Soviet Union (Vaslav Tchitcherine), Southwest Africa (Oberst Enzian), and many other global locations cross paths as they traverse the European Zone in search for an enigmatic weapon known as the “Schwarzgerät” (black rocket). During this distributed quest, the paranoid ensemble encounters numerous conspiracy theories that suggest a sinister postwar entanglement between sovereign states and corporate cartels.

Even with its international weavings and extensive networks of power, *Gravity's Rainbow* demonstrates many of the attributes that have come to be associated with the American novel. For example, in line with Leslie Fiedler's criteria from his seminal 1950s study of the American novel, Pynchon's text recasts American literature's obsession with death. As Fiedler explains, the world of the American novel is “a world of fear and loneliness, a haunted world; and the American novel is preeminently a novel of terror” (26). This terror, however, is supplemented by what Fiedler sees as a distinctively American form of humor: “Our literature as a whole at times seems a chamber of horrors disguised as an amusement park ‘fun house,’ where we pay to play at terror and are confronted in the innermost chamber with a series of inter-reflecting mirrors which present us with a thousand versions of our own face” (27). Pynchon's juxtaposition of the

horrors of the Holocaust, German V-2 rocket strikes, and the atom bomb with heavy doses of toilet humor, parodies of Hollywood musicals, and obscene sexual limericks plays precisely into this multifaceted American literary tradition.²

As they emerge over the course of *Gravity's Rainbow*, the global and American aspects of Pynchon's novel are far from contradictory. The text reveals Americanness to operate not as a primarily national category, but as a new branding of American-driven global empire. As the book demonstrates, after World War II, American power assumed a distributed form, enveloping the world with its political, economic, and technological networks. This significant transformation did not mushroom entirely from the soil of European imperialism and the Western system of international capitalism. The new form of empire — or “globalization” as it has been dubbed by supporters of this hegemonic development since the 1970s — also drew its strategies and biases from America's own unique origins. In particular, the infrastructural and ideological roots of neocolonial American power sprouted from the history of slavery and were fortified by racial structures established during and after Reconstruction in the United States.

² For a longer discussion of Pynchon's mode of humor, see Leo Bersani's "Pynchon, Paranoia, and Literature." Bersani argues, "Pynchon's work generously, and ambiguously, recapitulates the saintly assumptions of Rubinesque subversion: profound social change will not result from head-on assaults (terror is ineffective and unacceptable, revolution is unthinkable in the West, and even revolutionary regimes have shown themselves to be change of personnel unaccompanied by changes in assumptions about the legitimacy of power), but rather from a kind of aggressively seductive subversion of the *seriousness* with which networks of power conduct their business" (104).

Gravity's Rainbow uses the network and its associated metaphors to forge a link between the terror of global empire and the specifically American paranoia of race culture. W. E. B. Du Bois writes, in his 1903 text *The Souls of Black Folk*, "The problem of the twentieth century is the problem of the color line, — the relation of the darker to the lighter races of men in Asia, in America and the island of the sea" (16). In this pronouncement, he both demarcates the "color line" as the key "problem" of the twentieth century and announces that predicament to be global. Du Bois has in mind earlier U.S. imperial ambitions in such areas as Latin America and Puerto Rico, and conflicts such as the Spanish-American War of 1898. Nevertheless, even as the problem of the "color line" derives from the aftermath of slavery and the Pan-Americanism that extended Manifest Destiny beyond the borders of the United States in the late nineteenth- and early twentieth-century, it is equally relevant to the era of globalization.³ With the emergence of American empire, however, the color *line* has transformed into a network *edge*. An imperial geometry of division, destruction, and discrimination has ceded to empire's network topology of assimilation, accommodation, and adaptability.⁴

³ For an excellent analysis of Du Bois in the context of early U.S. imperialism and Pan-Americanism, see: David Luis-Brown's *Waves of Decolonization: Discourses of Race and Hemispheric Citizenship in Cuba, Mexico, and the United States*.

⁴ Pynchon explores national lines and boundaries in relationship to colonialism and slavery in the United States even more extensively in his equally encyclopedic 1997 novel *Mason & Dixon*.

Through both its plot and aesthetics *Gravity's Rainbow* explores the transition from the imperial nation-state system predicated on color lines to the postwar system of empire organized as a global network. The novel draws parallels between the political fiction of American power and the social fiction of race. Even more forcefully, Pynchon demonstrates that American racial anxiety and its related paranoid affects have actively served the spread of U.S. hegemony around the world. The novel suggests that, since the mid-twentieth century, American power has been characterized by a displacement of the terror inherent in the *white network* of empire through the perpetuation of a widespread fear of an organized *black network* made up of diasporic and decolonization movements. *Gravity's Rainbow* makes up an intertextual literary web — a network narrative — that reflects on the nature of contemporary interconnection and uses diverse linkages to expand the formal parameters of the American novel itself.

4.1 Empire's "Edge" and the Emergence of the Network Narrative

Gravity's Rainbow is an origin myth about the rise of the postmodern era. Published in 1973, the novel turns back to the history of early twentieth-century European imperialism and the end of the Second World War to make sense of the period in which the classical nation-state model underwent a gradual transformation into the contemporary global network. While Pynchon's novel gestures repeatedly

to early colonial adventures, he is primarily concerned with the changes that took place in the twentieth century. Nevertheless, a sketch of the European prehistory of American empire demonstrates the significance of the more recent sociopolitical transition, the emergence of the global network structure, and the innovativeness of Pynchon's politically-charged aesthetic.

Hannah Arendt's *The Origins of Totalitarianism* (1951) represents one of the most extensive studies of the same political history that informs Pynchon's epic. Through theory and fiction, respectively, both writers sought to craft origin stories of the postwar era that would explain the significant historical rupture produced by World War II. Chronicling this momentous shift, Arendt connects the decline of the European nation-state to the legacy of imperialism in the late nineteenth and early twentieth centuries. As she explains, around the seventeenth century, the nation-state system came to replace a crumbling feudal apparatus that had dominated Europe for hundreds of years. After the French Revolution, at the end of the eighteenth century, the Western nation-state rose to greatest prominence, linking sovereignty, territory, and nation. Over the years, the European nation-state enabled more substantial business transactions and thereby facilitated an unprecedented accumulation of wealth by Western powers. Given considerable economic success, the nation-state structure did not show signs of instability until the late nineteenth

century. Although the political paradigm shift that precipitated the weakening of the nation-state had numerous catalysts, perhaps the most important was the development of European imperialism: the international struggle for power that reached its zenith over the three decades between 1884 and 1914. From the First Boer War and the Berlin Conference until the outbreak of World War I, the process of empire building and violent territorial acquisition fed global colonial aspirations. According to Arendt, without the expansionist imperative of European imperialism — a process of development for the sake of development that transcended straightforward economic motivations — the nation-state system might not have disintegrated so rapidly. In fact, the “scramble for Africa” was not, as it appeared to some, the apotheosis of an omnipotent European nation-state form, but on the contrary, its simultaneous undoing and transformation.

During the European imperialist period, the focus shifted from domestic politics to foreign policy. As Arendt puts it, imperialism unfolded “with its stagnant quiet in Europe and breathtaking developments in Asia and Africa” (123). Spurred by bourgeois entrepreneurs with an excess of investment capital, bounded nation-states came to participate in an unbounded process of international expansion. During this period, governments and private investors became intimately connected. The nineteenth century saw the state become absolutely reliant on finance and

investment for the first time, elevating the Weltanschauung of political economy to a vertiginous apex. Indeed, with the imperialist reliance on state-based military might for effective expansion, finance capital entered a completely bi-directional exchange with the government's undisputed monopoly on force.

Instead of merely narrating the development of imperialism — in its role both as a cultural mentality and a politico-economic program — Arendt characterizes it as a new kind of international system. She argues that the two key political technologies fueling imperialism were “race as a principle of the body politic” and “bureaucracy, as a principle of foreign domination” (185). Merging the social ideology of racism with the bureaucratic geopolitics of internationalism, imperialism proliferated around the world until its crises erupted into World War I. After the war ran its course, however, imperialism did not disintegrate. It swelled into the frenzied madness of Bolshevik and Nazi totalitarianism, which escalated through the 1920s and 1930s. In the years building up to the cataclysmic global disaster of the Second World War, the imperial doctrine of expansion for the sake of expansion, previously the logic of *foreign* domination, was adapted to serve *domestic* ends. In the inter-war years, European-based Pan-Germanism and Pan-Slavism movements arose alongside foreign imperialism. Supported by a virulent anti-Semitic ideology, these pan movements set the stage for the Nazi and Soviet totalitarian regimes.

These movements invigorated Europe's most terrifying totalitarian governments and, subsequently, helped ignite the bloodiest conflict of the twentieth century.

The end of World War II and the Allied defeat of the Axis powers did not spell an end to the complex political shifts that began in the late nineteenth century. The Allied victory did not produce a worldwide peace and fully restore the weakened nation-state system. Instead, in the middle of the twentieth century, a massive historical transformation took place. This change brought with it widespread political, economic, technological, and social consequences. It also represented a significant shift in the parameters of power and control. Theorists Michael Hardt and Antonio Negri have described this shift as a transformation from an international system of discrete territorial nation-states to a truly decentralized global mode of sovereignty that they call "Empire" (4). Empire moves beyond the sphere of traditional political power and establishes control through economic, social, and cultural means. Indeed, the end of World War II saw a gradual transition to global organizations such as the United Nations. At the same time, massive corporate networks extended their growing tendrils to encompass the global economic order. As Hardt and Negri maintain, "In the passage to the informational economy, the assembly line has been replaced by *the network* as the organizational model of production" (295).

The genealogy that informs the allusions and narrative turns of *Gravity's Rainbow* (and *V.* before it) shares striking parallels with Arendt's account. Several episodes in the background of the novel — including the story of seventeenth-century Dutch colonization of Mauritius in southern Africa and the recurring reminder of the German-perpetrated 1904 Herero genocide — are attuned to the connection between European imperialism and white supremacy. Pynchon, who is writing two decades after Arendt, however, focuses on the postwar power vacuum that most directly gave rise to this overarching network structure. In its content, aesthetics, and form, the novel charts the continuities and discontinuities of the major historical transition from European imperialism to American empire.⁵

For Pynchon, the interconnected *structure of empire* is intimately connected with the *space of the colony*. As he characterizes the earlier colonial zone:

Colonies are the outhouses of the European soul, where a fellow can let his pants down and relax, enjoy the smell of his own shit. Where he can fall on his slender prey roaring as loud as he feels like, and guzzle her blood with open joy. Eh? Where he can just wallow and rut and let himself go in a softness, a receptive darkness of limbs, of hair as woolly as the hair on his own forbidden genitals.... Out and down in the colonies, life can be indulged, life and sensuality in all its forms, with no harm done to the Metropolis, nothing to soil those cathedrals, white marble statues, noble thoughts.... No word ever gets back. The silences down here are vast enough to absorb all behavior, no matter how dirty, how animal it gets (317).

⁵ Pynchon's prose both draws on and departs from the great novelists of imperialism, none more than Joseph Conrad. Mark Richard Siegel compares Conrad's earlier impressionistic style to Pynchon's aesthetic in *Pynchon: Creative Paranoia in Gravity's Rainbow* (23).

European power finds its defining space, both exceptional and exemplary, in the colony from which “no word ever gets back.” Pynchon’s literary web reflects the extreme perversity of the colony through passages that discuss fetishes from sadomasochism to coprophagia that are indulged during the emergency circumstances of World War II. Throughout the novel, such excesses spill over from the colonies, “where a fellow can let his pants down and relax,” to the Western Metropolis.

Pynchon personifies the inherent perversity of imperialism most concretely in the minor figure of a Jamaican corporal who performs in a British Christmastime church choir. “Tonight’s scratch choir was all male,” he writes, “epauletted shoulders visible under the white necks of the white robes, and many faces nearly as white with the exhaustion of soaked and muddy Fields.... Yet there was one black face, the counter-tenor, a Jamaican corporal, taken from his warm island to this” (128). In the passage that follows, the novel describes the course of this nameless Jamaican corporal’s wartime route: “From palmy Kingston, the intricate needs of the Anglo-American Empire (1939-1945) had brought him to this cold fieldmouse church” (128). As this sentence suggests, Jamaica, a British colony, took part in the Allied effort of the interim “Anglo-American Empire” during World War II, before gaining its independence from the United Kingdom in 1958. In Pynchon’s

dramatization of this process through a single figure, the introduction of the “one black face” to a sea of “white” produces a surreal effect. As the black man sings, the narrator offers a glimpse into the structural excess of the imperial unconscious:

He was bringing brown girls to sashay among these nervous Protestants, down the ancient paths the music had set, Big and Little Anita, Stiletto May, Plongette who loves it between her tits and will do it that way for free—not to mention the Latin, the *German?* in an English church? These are not heresies so much as imperial outcomes, necessary as the black man’s presence, from acts of minor surrealism—which, taken in the mass, are an act of suicide, but which in its pathology, in its dreamless version of the real, the Empire commits by the thousands every day, completely unaware of what it’s doing (129).

The transgressive juxtaposition of hardcore sexuality and religious piety belongs not to the realm of abstract “heresies,” but to a historically specific chain of “imperial outcomes.” The “black man’s presence” in the imperial metropolis is already a surreal development. What seems like a bizarre juxtaposition in the space of the holy mass, however, proves to be the norm in the colony and the war zone: spaces in which “Empire” violently renders “its dreamless version of the real” (129).

Gravity’s Rainbow charts the move from the interim “Anglo-American Empire” to American hegemony after World War II. This rising American power defines itself by differentiating its democratic imperative from the excesses of previous colonial enterprises. In place of the carefully drawn national borders of the imperial powers, the European Zone opens up into a new world following the war.

With the disappearance of the Western frontier, America transitions from the territory of the colony to the topology of the distributed network. In *Gravity's Rainbow*, this interlinked structure becomes represented through several themes and figures. Most prominently, a complicated web of connections develops around the object of the V-2 rocket and the recurring figure of German Captain Weissmann (aka "Blicero").

The V-2 missile technology, which belongs as much to the final years of World War II as it does to the Cold War's threat of long-range nuclear exchange, breaks down distinctions among the individual, the nation, and the corporation. The novel makes this suggestion explicitly in a passage describing the structure of the German technoscientific assemblage that constructs the deadly rocket and is, in turn, produced by it:

No one could really claim credit 100% for any idea, it was a corporate intelligence at work, specialization hardly mattered, class lines even less. The social spectrum ran from von Braun, the Prussian aristocrat, down to the likes of Pökler, who would eat an apple in the street — yet they were all equally at the Rocket's mercy: not only danger from explosions or falling hardware, but also its dumbness, its dead weight, its obstinate and palpable mystery (402).

Breaking down lines of class and specialization, the V-2 rocket is a technology created by a vast human network. What is perhaps even more remarkable is the missile's unforeseeable postwar afterlife. As the novel inquires about the rocket production plan, "Did the S-Gerät program at Nordhausen in its time ever hint that

so many individuals, nations, firms, communities of interest would come after the fact?" (517).⁶ It begins as a German invention, but the V-2 rocket evolves beyond its original form and comes to influence global politics.

The V-2 missile is not an anthropomorphized figure in *Gravity's Rainbow*. Nevertheless, its ubiquity across contexts insinuates a new type of decentralized power that transcends mere technological innovation. Shortly after the war has ended in Europe, the perpetually paranoid American Lieutenant Tyrone Slothrop travels to Zürich by train in search of the mysterious Schwarzgerät missile, and instead observes the "edges" of a larger network that he does not yet understand: "The War has been reconfiguring time and space into its own image. The track runs in different networks now. What appears to be destruction is really the shaping of railroad spaces to other purposes, intentions he can only, riding through it for the first time, begin to feel the leading edges of..." (257). These haunting "railroad spaces" conjure the ghost of the Nazi Holocaust — the horrific genocide facilitated by Europe's railway network infrastructure — and register the "edges" of "different networks" that rise from the ashes of wartime death. As Slothrop soon discovers, the

⁶ If the production of the weapon is destructive of clearly demarcated borders, the actual explosive effects of the rocket are equally destabilizing. As *Gravity's Rainbow* constantly reminds us, engaging in a kind of aesthetic repetition compulsion, the V-2 missiles that hit London in the final months of the war could not be heard until after they had already exploded. As such, this weapon does more than produce destruction: it terrifies an entire population that is conditioned, through erratic bombardment, to expect death at any moment. Breaking down the most sacred boundary between life and death, as well as the natural order of cause and effect, this new technology reduces once-secure masses to the ontological status of a living death.

new “time and space” of the fledgling era takes the form of a futuristic “Raketen-Stadt” (296) or “Rocket-City” (297). The Rocket, with its politico-economic implications and relation to emerging information networks, epitomizes the new form of Empire: an unprecedented form of control that, as Hardt and Negri put it, “operates through three global and absolute means: the bomb, money, and ether” (345).⁷ These three nodes of power — military dominance, economic hegemony, and information control — represent the major hubs of the postwar American network.

Like Slothrop, several characters connected to the V-2 missile glimpse the transformation in the world order without fully understanding its implications. For instance, the “mosaic” (564) of the coming global empire is revealed to Slothrop’s Soviet counterpart, intelligence officer Vaslav Tchitcherine, by a “very large white Finger” (566). This disembodied digit — Adam Smith’s invisible Hand of the market incarnate — reveals to the Soviet intelligence officer a startling “Rocket-cartel”:

A structure cutting across every agency human and paper that ever touched it. Even to Russia.... Russia bought from Krupp, didn’t she, from Siemens, the IG... Are there arrangements Stalin won’t admit... doesn’t even *know about*? Oh, a State begins to take form in the stateless German night, a State that spans oceans and surface politics, sovereign as the International or the Church of Rome, and the Rocket is its soul (588).

⁷ In Hardt and Negri’s tripartite control structure, the “bomb” represents “the panoply of thermonuclear weapons, effectvely gathered at the pinnacle of Empire” that “represents the continuous possibility of the destruction of life itself.” The second term, “money,” represents “the construction of the world market” through the decentralization of monetary markets. The final term, “ether,” signals “the management of communication” that takes place through a distributed network (345).

After World War II, Krupp, Siemens, and other prominent firms of the prewar economic order are no longer *firm*: no longer discrete entities that feed a nationalized war economy. This new structural instability leaves Tchitcherine with a speculative paranoid vision of the same new world that Slothrop has seen: "He will never get further than the edge of this mega-cartel, which has made itself known tonight, this Rocket-state whose borders he cannot cross" (566). While he cannot cross them, the borders of the "Rocket-state" are not closed in the sense that Tchitcherine supposes. The new world is instead characterized by an open-ended interpenetration of nation-state boundaries that make borders impossible to identify, let alone cross. Indeed, the "edge" of the "mega-cartel" cannot be traversed precisely because it is endlessly changeable.

In his descriptions of the Rocket and the cartels that it has enabled, Pynchon repeatedly invokes the metaphor of the "edge." This word forges a textual link between American empire and the network structure. In one sense, an edge is an epistemological boundary: a knowl-edge limit that precludes total comprehension. An edge is the mark of a perimeter, whether spatial or informational, that Pynchon's characters are incapable of infiltrating. A more striking connotation of this word, however, connects inaccessible knowledge with a new form of power that takes the form of the global network. In graph theory and the later network science that draws

upon it, an “edge” is a link that connects two nodes. This second meaning of “edge” colors Slothrop and Tchitcherine’s discoveries. It also complicates the missile that connects their quests by revealing it to be less an ultimate weapons technology than the edge of a networked world.

Closely associated with the V-2 missile is German Captain Weissmann (also known as Blicero) — the sadistic creator of the Schwarzgerät missile who serves as the spirit that haunts this new era of interconnection. This mysterious figure displays a singular power tied to his seeming omnipresence and immortality. While Pynchon never straightforwardly explains Weissmann’s strange ubiquity, this character’s recurrence is central to the novel’s network aesthetic. Most notably, the captain’s mad vision registers the movement from European imperialism to global empire. In a monologue he delivers in the final pages of the novel, Weissmann even uses the metaphor of the “edge” to describe a postwar empire that has its major hub in America:

America *was* the edge of the World. A message for Europe, continent-sized, inescapable. Europe has found the site for its Kingdom of Death, that special Death the West had invented. Savages had their waste regions, Kalaharis, lakes so misty they could not see the other side. But Europe had gone deeper — into obsession, addiction, away from all the savage innocences. America was a gift from the invisible powers, a way of returning. But Europe refused it. It wasn’t Europe’s Original Sin — the latest name for that is Modern Analysis — but it happens that Subsequent Sin is harder to atone for. In Africa, Asia, Amerindia, Oceania, Europe came and established its order of Analysis and Death. What it could not use, it killed or altered. In time the

death-colonies grew strong enough to break away. But the impulse to empire, the mission to propagate death, the structure of it, kept on. Now we are in the last phase. American Death has come to occupy Europe. It has learned empire from its old metropolis. But now we have *only* the structure left for us, none of the great rainbow plumes, no fittings of gold. No epic marches over alkali seas (722).

America, as “the edge of the World,” operates both as a link and a border. As a new political entity — a “message” for Europe that transcends the territorial boundaries of the United States — America once had the potential to spur new modes of connection and communication. Unfortunately, as Weissmann explains, this potential was never sufficiently actualized.

Weissmann’s monologue contends that instead of connecting the world and serving as a new beginning, America — as a nation, a concept, and an empire — pursued its competitive “edge.” Through the crisis of World War II, it became the sole “edge of the World” and transformed into Europe’s “Kingdom of Death.” In the captain’s formulation, America embraced the destructiveness that lay latent in the system it inherited from European imperialism. As it achieved dominance, this new power became the site of “that special Death the West had invented”: the culmination of the imperialist mania and genocidal insanity, which had already spread across all of the world’s continents. In Captain Weissmann’s estimation, America — once a figure of the possibility for real democracy — failed as the occasion to grapple with the unforgivable sin of imperialism. Even the insane

captain's prophetic vision of the postwar decolonization movement, in which "the death-colonies grew strong enough to break away," is insufficient to do away with the underlying "impulse" and "structure" of empire (722). With the emergence of postwar American hegemony, imperialism was merely transformed into a different form with new edges of knowledge and power. This form of empire no longer relied on "epic marches over alkali seas," but on subtler asymmetries, distributions, and assimilative strategies.⁸

A key aspect of Pynchon's insight about the new American network in Weissmann's sprawling monologue is the association he draws between the "order of Analysis and Death." Weissmann uproots the "Original Sin" of the Christian Tree of Knowledge and reveals the web-like branching of a "Subsequent Sin" that manifests as "Modern Analysis" (722). Notably, the English word "analysis" derives from the Greek elements "ana" ("up, throughout") and "lysis" ("a loosening"). Analysis thus involves a breaking up of a complex matter into its constitutive parts in the service of comprehension. In the service of technoscience, the analytic process of grasping or seizing knowledge relies on the acquisition of mastery. While

⁸ The continuity between European imperialism and American Empire is captured in a later passage that alludes to Weissmann's fate after serving in the German army during World War II: "If you're wondering where he's gone, look among the successful academics, the Presidential advisers, the token intellectuals who sit on boards of directors. He is almost surely there. Look high, not low" (749). As this passage suggests, even high-ranking European war criminals frequently made seamless transitions to America's new kingdom of death.

American empire seeks to command, control, and master the entire globe — destabilizing the underpinnings of the prior order — Western analytic techniques carry on the parallel charge of mastering knowledge. Pynchon's invaluable insight is to demonstrate that a will toward mastery can only produce death, especially when Modern Analysis enables the expansion of technoscience into areas such as rocketry. *Gravity's Rainbow* does not merely make this point through its exposition. The novel, a daunting text that relies on an aesthetic of irreducible complexity and interconnectedness, itself frustrates and ultimately refuses mastery. Readers can certainly make connections between its numerous elements, but as the challenging postmodern tome makes obvious, analytical closure is ultimately unachievable. Even as it takes parabolic flight, following a rocket-like path around the global sphere, knowledge remains an "edge" that cannot be breached.

Gravity's Rainbow conjures the sublime age of interconnection through a narrative form that mimics an extensive network. To describe the structure of *Gravity's Rainbow*, in 1976, Edward Mendelson coined the term "encyclopedic narrative." For Mendelson, the formal genre of the overwhelmingly expansive encyclopedic narrative includes texts from Dante's *Commedia* to Melville's *Moby Dick* to Joyce's *Ulysses*. As he explains, "Encyclopedic narratives all attempt to render the full range of knowledge and beliefs of a national culture, while identifying the

ideological perspectives from which that culture shapes and interprets its knowledge” (Mendelson 1269). Significantly, for Mendelson, encyclopedic texts are not simply vast cultural archives: they are “imperial” narrative structures bound to the form of the nation (1272). The form of the encyclopedia, of course, is inherently aligned with imperial aspirations. Alphabetically ordered and intent on totalizing classification, the encyclopedic compendium of human knowledge develops a general system that seeks to assimilate all the diversity of the globe. If, in the words of *Gravity’s Rainbow*, imperialism produces a capitalist “Kingdom of Death” then we might very well think of the encyclopedia’s seemingly benign project of factual accumulation as belonging to death’s other kingdom of “Analysis.”

The encyclopedia represents the prime textual artifact and conceptual structure of imperial excess.⁹ As the world shifted from imperial politics to empire, from the international to the global, and from the realm of knowledge to that of information, it was the network that became the new figure of American totality. Charting this mid-twentieth-century shift, *Gravity’s Rainbow* transforms the form of the “encyclopedia narrative” into that of a *network narrative*. If, for Mendelson, an encyclopedic author redefines an entire culture’s boundaries “from his position at

⁹ For more on the connection between encyclopedic archives and imperialism in the context of *Gravity’s Rainbow*, see: Thomas Richards’s “The Archive and Its Double” in *The Imperial Archive: Knowledge and the Fantasy of Empire*.

the edge of a culture," a network author produces a more connective kind of "edge" (Mendelson in Levine and Leverenz 178).¹⁰ Pynchon neither reproduces a neatly demarcated encyclopedic form nor, as Mendelson suggests, merely criticizes that form from his external vantage point. Instead, with *Gravity's Rainbow*, he fashions new edges, links, and nodes from the inside of a vast and ever expanding network. He constructs an open system that can no longer sustain the fiction of national borders or the artificial boundaries between literature and the worlds it seeks to represent. In place of bifurcated dualisms and divisive distinctions, there are only endless connections that are, at once, insanely paranoid and wildly creative. Preterite and elect, freedom and control, cause and effect, history and fiction, high and low art, science and the humanities, African Hereros and American Puritans, Europe and the United States, good and evil: these thematic elements interpenetrate and flow into one other in a compositional chaos that is both beautiful and terrifying. *Gravity's Rainbow* does not stop at the disruption of binaries.¹¹ It connects

¹⁰ In "Gravity's Encyclopedia," Mendelson identifies the international dimension of *Gravity's Rainbow*. In "Encyclopedic Narrative," he writes, "Pynchon's international scope, his attention to cartels and communications-networks that ignore national boundaries, suggest that he may be the encyclopedist of that newly-forming international culture whose character his book explicitly labors to identify" (1271-2). I argue that instead of a merely "international" culture, *Gravity's Rainbow* describes a downright "global" network.

¹¹ As Oedipa Maas suggests in Pynchon's *The Crying of Lot 49*, "excluded middles" are undesirable (150). Instead of an either/or split, many critics have suggested a "both/and" model to understand Pynchon's aesthetic (Kolodny and Peters). While the configuration of the network that I am describing certainly supports a "both/and" scheme, it also suggests a connective structure that unites more than the two elements of a binary. In the very act of transformation that the network suggests and embodies, something other than the combination of binary poles emerges.

wholly unrelated elements and opposites. Producing what critic Thomas Moore calls “the style of connectedness,” Pynchon’s novel encourages associations and augmentations, seducing readers into peregrinations of thought that travel beyond the formal parameters of the text (Moore 6).¹²

In place of the standard cause-and-effect chronology of the novel form and the ordered classification of the encyclopedic form, the network organization of *Gravity’s Rainbow* experiments with alternative structures of space and time. The space of the novel stretches across the entire globe and even ventures into otherworldly spectral zones on “the other side” (31). The time of the novel is variable, relying on frequent prewar analepses and prolepses to the postwar American era, and engaging in the rhetorical reversibility of *hysteron proteron*. In one flashback to prewar Germany, the Communist revolutionary Leni Pökler articulates this aspect of Pynchon’s aesthetic form through a deployment of *ars poetica*. She explains to her rocket scientist husband Franz, whom she characterizes as a “cause-and-effect man,” that the world is not always temporally and spatially linear: “It all goes along together. Parallel, not series. Metaphor. Signs and symptoms. Mapping on to different coordinate systems, I don’t know...” (159). The consistent succession

¹² Pynchon’s “style” of connectedness extends beyond the genre of the text, affecting the very nature of the connections he makes. Moore describes this approach as “Pynchon’s comic-book-surrealist style” (6). Pynchon oscillates wildly between high and low culture. That is, *Gravity’s Rainbow* uses both metaphors that rely on knowledge of missile ballistics and the physical humor of slipping on a banana peel.

of cause and effect belongs to the realm of analytical knowledge, whereas the system of parallel and metaphor belongs, as Leni's trailing ellipsis suggests, to the edge of an unknowable "coordinate system."¹³

The distributed network is the organizational structure that makes possible the transition from imperialism to empire. Since the Second World War, even with the intensification of decolonization movements, empire has persisted through relations of military dominance and economic interdependence. *Gravity's Rainbow* marks the moment that America, via politico-economic dominance as well as the development of the atom bomb, achieved hegemonic status. This new world system of unprecedented association is, in the words of the novel, founded on a "control that is out of control" (277). As a network narrative, Pynchon's text channels this uncontrollable control — a human-constructed reversal of entropy that nonetheless fails to achieve a total interpretive order — through numerous narrative nodes and global sites. Oscillating between a tightly organized system of interrelated themes,

¹³ The comprehensive encyclopedia already gestures toward the open and parallel elements of the network. As Mendelson explains, "Like the giants whose histories they include, all encyclopedias are monstrous" in the Latin sense of *monstra* that signals "omens of dire change" (1272). If an encyclopedic narrative is "monstrous," inspiring fear about an imminent cultural change, a network narrative brings with it a modified quality of fear about an unknown emergence: what the novel calls "paranoid terror" (*Gravity's Rainbow* 522). The fear that pervades *Gravity's Rainbow* signals a cultural apocalypse: not the ending promised by the atom bomb but, as the word's Latin root suggests, a "revelation" or "disclosure" of a historical transformation. Indeed, World War II represents a catastrophe: not cataclysmic devastation so much as an "overturning" and "reversal of expectations" suggested by that word's Greek root. This transformation is figured by the structure of the network and its corresponding cultural anxieties.

metaphors, and allusions, on the one hand, and a postmodern chaos on the other, the novel captures the logic of a new control society through its language. In its literary system, everything is interconnected, albeit according to an unstable protocol.

The question of global control drives Pynchon's literary project. As the ghost of Walter Rathenau (the Foreign Minister of Germany during the Weimar Republic) reveals in a séance early in the novel, coming to terms with this shift in power is integral to understanding the worldwide changes in the mid-twentieth century. He explains to a room full of European officials, "You must ask two questions. First, what is the real nature of synthesis? And then: what is the real nature of control?" (167). Combining these questions, we might ask: What is the nature of a control that depends not on hierarchy but on synthesis, not on binary oppositions but on interconnected networks? The historical paradox that attends this question is that even as an aesthetic of interconnection was used increasingly to describe a united world — a "globalized" planet consisting of political, economic, and informational networks — the postwar order was also characterized by dislocation, miscommunication, and discord. Despite the endless interpenetrations of world markets, international political alliances, and communications systems, the vast distances between individuals and nations were not radically bridged with the

official resolution of World War II. Indeed *Gravity's Rainbow* suggests that postwar control depends precisely on an aesthetic of seamless connectivity that covers over a deeper isolation.

Networks are not always pathways to freedom. They can also serve as architectures of control. American Lieutenant Tyrone Slothrop, for instance, spends most of *Gravity's Rainbow* travelling around the European Zone and pursuing a romantic freedom from control systems. His solipsistic quest puts him in continuity with masculine American frontier heroes blazing into uncharted territories. As such, his pursuit of freedom eschews an understanding of the violent conditions that underpin the possibility of freedom. Slothrop's paranoia-infused mission to escape an abstract "Them" is not so much the articulation of a specific social, cultural, and political desire, as it is the leading "edge" of a more complex racial system with terrifying American origins.

4.2 The American Schwarzroman

The relationship between contemporary empire and racial ideology has a history that stretches back several centuries. According to Arendt, whose political philosophy parallels Pynchon's attempt to tell a postwar origin story by means of an American novel, racism was directly responsible for the violent excesses of imperialism. "Race-thinking," as she calls the ideology that fueled global conquest,

played a central role in the European exploitation of Africa and Asia. As Arendt observes, race-thinking as a political logic was first made plausible when employed as a ruling device by the Boers in the seventeenth century. This virulent ideology did not reach its apex, however, until the nineteenth and twentieth centuries when it came to justify the imperialist expansion that, on the eve of World War I, encompassed 85% of the Earth's territory and left millions dead in its wake (Lindqvist 20). Indeed, the world wars were not only manifestations of internal European power struggles, but wars of an imperial politics come home to roost. Originally practiced outside of Europe, imperial race politics in the form of anti-Semitism was utilized domestically by the Nazi regime in the years leading up to and encompassing World War II (Arendt).¹⁴

¹⁴ During the war, the perpetual state of exception to the international rules of war — a state that had already come to dominate conflicts with foreign enemies outside the borders of Europe — made a domestic return in the spatial form of the concentration camp: that horrific enclosure first used in South Africa during the Second Boer War and applied on a mass scale during the Holocaust. By way of earlier imperial genocides, the mass extermination of Jews represented the historical zenith of race-thinking in the service of war. This horrific genocide was not a historical aberration; it was the natural extension of Europe's compartmentalization of war initiated with the medieval *bellum romanum* and codified in Enlightenment war theory. Extending the destructive logic of global expansionism and Europe's international war law to those outsiders present within Europe's borders, the totalitarian view of war simply continued a well-established Western tradition. In both cases, humanitarian considerations could be discounted when targeting a broadly defined category that included barbarians, savages, infidels, insurgents, and other racially marked non-Europeans. For more on this topic, see: Giorgio Agamben's *Homo Sacer: Sovereign Power and Bare Life*. While Arendt is one of the first Western political theorists to draw the link between imperialism and totalitarianism, and to develop the implications of the space of the camp to modernity as such, Agamben's project offers an prominent contemporary reading of the camp as a key political model.

Like Arendt, Pynchon explores the connection between imperialism and the white supremacist foundation of race-thinking. Departing from the primarily European focus of Arendt's study, however, *Gravity's Rainbow* examines the centrality of race in American politics after World War II. In fact, throughout his fiction — from *V.* (1963) to *Mason & Dixon* (1997) — Pynchon links together the system of European imperialism with the cognitive racial structures that have served as the groundwork for American power both domestically and abroad. *Gravity's Rainbow*, in particular, treats the ideology of race as the hub that connects twentieth-century global events such as the Herero genocide, the Holocaust, decolonization, and the American Black Power movement. Rather than representing these events historically, as Arendt does, Pynchon expresses them aesthetically by generating an affect of fearful paranoia.

Arguably, American literature has always been a paranoid enterprise.¹⁵ Beginning with the gothic romances of Charles Brockden Brown and the Puritan fictions of Nathaniel Hawthorne, the nation's most prominent prose narratives have registered, explored, and produced the fearful suspicion that pervades American

¹⁵ From a historical standpoint, the American tradition of paranoia can be traced back several centuries to everything from the Salem witchcraft hysteria of the seventeenth century to the anti-Masonic conspiracy theories of the nineteenth century. It was not until the 1950s, however, that paranoia infused mainstream politics and, along with it, literature.

history.¹⁶ Since the power vacuum that opened up in the wake of World War II and transformed into the Cold War's nuclear balance of terror, American literary production has blurred the line between the associative work of intertextual synthesis and the excessive connection of neurotic paranoia. If it was previously an extremist phenomenon, in the latter half of the twentieth century conspiratorial suspicions became a mainstay of both American politics and its corresponding national literature.¹⁷ Beginning in the 1950s, prominent American writers such as William Burroughs, Jack Kerouac, Norman Mailer, and Hunter S. Thompson channeled a pervasive mistrust that had reached the status of a national obsession.¹⁸ It was only in the 1960s, however, that America first discovered, in Thomas Pynchon, its premiere paranoid prose stylist. Among an impressive series of paranoid novels, *Gravity's Rainbow* (complete with its collection of "Proverbs for Paranoids") is Pynchon's Bible of "creative paranoia" (Siegel 21).¹⁹

¹⁶ In particular, I have in mind texts such as Brown's *Wieland, or The Transformation* (1798) and short stories such as Hawthorne's "Young Goodman Brown" (1835). Other canonical American writers who fit into this tradition include Poe and Melville. Of course, paranoia is equally widespread in later American genre fiction.

¹⁷ As Richard Hofstadter announced "the paranoid style in American politics" in 1964 so, in 1976, Scott Sanders observed "the paranoid style in American literature" (140).

¹⁸ Critic Emily Apter contends, "paranoia consistently emerges as a preeminent topos in major works of the post-World War II American canon" (366).

¹⁹ Pynchon himself names this state "Slothropian paranoia," after the novel's ultra-paranoid protagonist, American Lieutenant Tyrone Slothrop (*Gravity's Rainbow* 192).

While virtually all of the critical work on *Gravity's Rainbow* discusses its paranoid dimension, few analyses emphasize the link between paranoia and race-thinking that is central to its style. More often, critics treat the paranoia that drives the novel as the representation of an all-consuming postmodern epistemology or the effect of the Cold War clash between the United States and the Soviet Union. Even as Pynchon's polysemic conception of paranoia invites such interpretations, these accounts do not adequately capture the specificity of the affect that dominates the text. For Pynchon, paranoia is the psychological residue of a more concrete network of injustice: an ideological structure of racial discrimination that has supported everything from the transatlantic slave trade to worldwide imperialism. The specter of race haunts Pynchon's network narrative and provides the associative logic that ties together many of its elements. Paranoia, in turn, serves as an affective expression of race-thinking and an emotional marker of the American global network that arose in the mid-twentieth century.

Momentarily setting aside the chain-link between paranoia and race, it is important, first and foremost, to establish the significance of race in Pynchon's writing. It is curious that so many critics have overlooked the more fundamental African presence in *Gravity's Rainbow*, which comes through in its constant

metaphoric returns to “blackness” and “whiteness.”²⁰ Like the Herero people of Southwest Africa who figure prominently in *Gravity’s Rainbow*, as well as *V.* before it, this aspect of the novel has been frequently “passed over”: noted perfunctorily as part of the book’s surreal landscape, assimilated into some more abstract discussion of postmodern aesthetics, or more often elided altogether.²¹

Toni Morrison’s incisive study *Playing in the Dark* suggests an alternative way of reading the racial metaphors that undergird Pynchon’s writing. Morrison’s analysis of such canonical American writers as Edgar Allen Poe, Willa Cather, and Ernest Hemingway foregrounds the “black presence” in America that “is central to any understanding of our national literature and should not be permitted to hover at the margins of the literary imagination” (5). Turning to expressions of race through tropes of blackness, she provocatively contends, “Race has become metaphorical — a

²⁰ The criticism on *Gravity’s Rainbow* mentions black holes, black markets, and black humor, but rarely is there any meaningful discussion about the metaphorical substratum of blackness that undergirds the novel, not to mention its relationship to race. Granted, there are exceptions to this persistent omission but fewer than would be expected given the considerable scholarly industry of Pynchon criticism. Even when they touch upon issues of colonialism or race, however, these works do not work through the complex metaphors of “blackness” in the novel. Nevertheless, a few essays are cognizant of Pynchon’s treatment of race (e.g., Tiina Käkälä-Puumala and Robert L. McLaughlin). A more multifaceted engagement with race in the novel to which I return later is Victoria Ramirez’s “The Herero in the Harz: Pynchon’s Re-Presentation of Race Relations in *Gravity’s Rainbow*” Even with these exceptions, it is striking that these themes are addressed so infrequently given the enormous quantity of scholarship published on *Gravity’s Rainbow* and Pynchon’s other fiction.

²¹ In addition to avoiding race in Pynchon’s work, some critics carelessly lump him together with white male postmodern writers who privilege aesthetic experimentation to politics. See, for instance, W. Lawrence Hogue’s “The Privileged, Sovereign, Euro-American (Male), Post/Modern Subject and Its Construction of the Other: Thomas Pynchon’s *V.* and Paul Auster’s *The New York Trilogy*” (in *Postmodern American Literature and Its Other*). Categorizations of Pynchon’s work as apolitical white male navel-gazing ignore his exploration of the relationship between black subjectivity and white selfhood.

way of referring to and disguising forces, events, classes, and expressions of social decay and economic division far more threatening to the body politic than biological 'race' ever was" (63). Notably, Morrison chooses to study the effects of race by framing her project as "an effort to avert the critical gaze from the racial object to the racial subject; from the described and imagined to the describers and imaginers; from the serving to the served" (90). This analytical shift from the blackness of the "racial object" to the whiteness of the "racial subject" is precisely the one that Pynchon adopts in his self-reflexive critique and careful revision of the American literary tradition.

Even before the publication of *Gravity's Rainbow*, in 1973, Pynchon's interest in race and the significance of white identity in the United States permeates his acclaimed novel *The Crying of Lot 49* and his essay "Journey Into the Mind of Watts," both published in 1966. *The Crying of Lot 49*, Pynchon's novelistic precursor to *Gravity's Rainbow*, focuses on American constructions of whiteness. The protagonist, Oedipa Maas, makes the historical transition from the 1950s to the 1960s, and the parallel spatial shift from the comforts of the aptly named San Narcisco to a more expansive Southern California world. In her quest, she scours for signs of a decentralized "W.A.S.T.E." communication network that represents a potential subversive alternative to the centralized U.S. Postal Service. Although Oedipa

romanticizes the escape from her white suburban prison through the hunt for the W.A.S.T.E. system, she remains blind to the social “waste” that populates the peripheries of her own solipsistic universe. Her search for the oppositional “Trystero” system that, she acknowledges, might “symbolize” some “brute Other” keeps her from the more concrete social reality around her (*The Crying of Lot 49* 128). Oedipa’s desire to expand her own experience and process of discovery blinds her to the existence of those “wretched” Americans who have no access to her insular Southern California world of Tupperware parties, ubiquitous television sets, and psychoanalytic therapy (82).²²

Published shortly after *The Crying of Lot 49*, Pynchon’s extraordinary *New York Times Magazine* article “Journey into the Mind of Watts” continues this analysis of American race relations in a more explicit fashion. The piece uses the 1966 shooting of a black Watts man, Leonard Deadwyler, by a white Los Angeles police officer to discuss “L.A.’s racial sickness” and the failed American “poverty war” of the 1960s. Pynchon uses these contemporary realities to delve into the national unconscious and map a psycho-geography of race in the U.S. The race terror that overtakes L.A., he contends, is systemic. An atmosphere of perpetual fear is maintained by “the white culture” that not only “surrounds Watts,” but “besieges

²² The word *triste* that also serves as the root for *Trystero* also carries the connotation of “wretched.”

it." The racially motivated killing is, as Pynchon explains, far from an isolated misfortune or an unfortunate accident:

The killing of Leonard Deadwyler has once again brought it all into sharp focus; brought back long-standing pain, reminded everybody of how very often the cop does approach you with his revolver ready, so that nothing he does with it can then really be accidental, of how, especially at night, everything can suddenly reduce to a matter of reflexes: your life trembling in the crook of a cop's finger because it is dark, and Watts, and the history of this place and these times makes it impossible for the cop to come on any different, or for you to hate him any less ("A Journey Into the Mind of Watts").²³

The atmosphere of Watts suggests a layered terror that includes the black fear of racial profiling practices regularized by the white police force and the subtler forms of racism that emanate from the white L.A. population that both surrounds and contains the black neighborhood. In this article, Pynchon demonstrates that the terror that follows World War II is not merely an effect of the Cold War nuclear standoff between the United States and the Soviet Union, but also a component of daily life, particularly for those groups excluded from the white American dream. More pronounced than nuclear threat, the systemic racial paranoia that seizes America and the world threatens to erupt into the type of destruction witnessed during the six chaotic days of the Watts riot. "In a pocket of reality such as Watts, violence is never far from you," Pynchon observes, "because you are a man, because

²³ The tragic shooting that this piece describes took place a year after the 1965 Watts riot.

you have been put down, because for every action there is an equal and opposite reaction.”²⁴

Pynchon’s reflections on race in the 1960s provide a different frame for reading *Gravity’s Rainbow*, his next major work. Using his language from the “Watts” essay, it is possible to say that the characters of this 1973 novel are “besieged” not only by V-2 rockets, but also by an omnipresent racial ideology that both founds and disrupts the mid-twentieth-century world. Admittedly, the novel’s commentary on race is communicated through subtle linguistic recurrences and subconscious images of blackness. Throughout the text, Pynchon attaches the German word for black — “schwarz” — to various roots. For example, a unit of Herero rocket specialists imported to Nazi Germany to help with wartime operations, labeled the “Schwarzkommando” or “black command,” is sought by the British “Operation Black Wing” (276). On another occasion, American Lieutenant Tyrone Slothrop imagines himself as a “Schwarzknabe” (black boy) who is at the mercy of sundry secret scientific organizations that are studying his sexual exploits (286). Later,

²⁴ It is worth noting that Pynchon’s position on the rioters’ violence shares features of the violence of decolonization that Franz Fanon describes in his 1963 essay “Concerning Violence” (in *The Wretched of the Earth*). In this piece, Fanon outlines a system of terror in which the “first encounter” between colonizer and colonized was marked by “violence.” In Fanon’s view, the colonizer demonizes, dehumanizes, and transforms the native into an animal that must forfeit its rights. In this sense, the violence with which natives might react to their oppressors is already inscribed in the original opposition instituted by the colonist. I would argue that Pynchon’s observation about the structural nature of violence in a domestic American setting in the passage above suggests a similar view of a system of terror.

during a key hallucinatory episode in which Soviet intelligence Officer Vaslav Tchitcherine injects Slothrop with the truth serum sodium amytal and interrogates him about the black Schwarzkommando leader named Enzian, Slothrop returns obsessively to the color black:

Black runs all through the transcript: the recurring color black. Slothrop never mentioned Enzian by name, nor the Schwarzkommando. But he did talk about the Schwarzgerät. And he also coupled 'schwarz-' with some strange nouns, in the German fragments that came through. Blackwoman, Blackrocket, Blackdream.... The new coinages seem to be made unconsciously. Is there a single root, deeper than anyone has probed, from which Slothrop's Blackwords only appear to flower separately? (391).

In this passage, the blackness that brews at the novel's core bubbles to the outer crust. During Slothrop's hallucination, blackness "runs all through the transcript," coloring the entirety of the linguistic spectrum.

Even as it dominates the text, blackness runs on a track that is parallel to whiteness and ultimately intersects with it. Pynchon's allusions to the great American encyclopedic novel of the nineteenth century, Herman Melville's *Moby Dick*, are unmistakable and integral to this linkage. Whereas *Gravity's Rainbow* foregrounds blackness, *Moby Dick* performs a parallel exploration of whiteness. Notably, Melville's chapter "The Whiteness of the Whale" offers a catalogue of white American cultural imaginary in the context of a reflection on the white whale. For the protagonist, Ishmael, it is "the whiteness of the whale that above all things

appalled me" (Melville 267). Without an understanding of this obsession-inducing whiteness, he explains, "all these chapters might be naught." In addition to its many irreducible meanings, whiteness is the "imperial hue" that gives "the white man ideal mastership over every dusky tribe" (267-8). As Toni Morrison observes in her own reading of this aspect of *Moby Dick*, "Melville is not exploring white *people*, but whiteness idealized" (*Unspeakable Things Unspoken* 143). In *Moby Dick*, the monomaniacal Ahab pursues the white whale and whiteness itself.

Similarly, in *Gravity's Rainbow*, a diverse cast of characters pursues the black rocket (the Schwarzgerät) and, with it, an elusive blackness. Two white characters, in particular, become obsessed with blackness: Tyrone Slothrop and Dutch spy Katje Borgesius. Slothrop, with his extensive Puritan heritage, carries the American legacy of white supremacy with him on his military tour through Europe. Instead of evading the gothic specters that usually disturb American literary heroes, Slothrop is haunted by blackness through linguistic slippages and hallucinations that unearth a deeply buried American race ideology. In addition to recurring color metaphors, Slothrop's anxiety-inducing visions offer a glimpse of the startling racial substratum that structures his perception but rarely manifests consciously.

In one of the most perplexingly surreal passages in the book, Slothrop undergoes a sodium amytal trip and envisions himself travelling down a shit-

stained toilet in Boston's Roseland Ballroom, circa 1939. As he tries to slide his way under the dirty water, a young Malcolm X (introduced as "Red, the Negro shoeshine boy") and his African American entourage creep up behind the white man and attempt to sodomize him (63). In this passage, Slothrop's recurring fear of blackness leads him associatively to the black radicals as well as to "traces of shit" that contain "patterns thick with meaning" along the toilet bowl (65). Slothrop observes that these black excremental "patterns" belong to "this or that Harvard fellow of his acquaintances." He adds that "some of it too of course must be Negro shit, but that all looks alike" (65). For all of its sexual, excremental, and racial vulgarity, Slothrop's vision is far from arbitrary.²⁵ His paranoia about Malcolm X — "the Unthinkable Nihilist" — and his black gang approaching his precarious "virgin asshole," invokes a white fear of black male sexuality and links it to the fear of a new form of power that might accompany successful anti-racist social movements (64, 65). The hallucination also reveals that even as the white American lieutenant does not

²⁵ In *Playing in the Dark*, Morrison produces a list of literary strategies used to represent blackness in American literature. She includes the technique of "fetishization," noting, "This is especially useful in evoking erotic fears or desires and establishing fixed and major difference where difference does not exist or is minimal" (68). Slothrop's fear of being raped by Malcolm X is representative of precisely this kind of erotic fear. In her discussion of fetish substances, Morrison notes that blood is often used to draw lines between the civilized and the savage. In *Gravity's Rainbow*, blood is supplemented with shit as another boundary matter. Excrement becomes a fetish object and a fearful substance. The link between shit and blackness is noted on a number of occasions. For example, the Pavlovian Dr. Pointsman attempts to demonstrate to his co-workers that "their feelings about blackness were tied to feelings about shit, and feelings about shit to feelings about putrefaction and death" (*Gravity's Rainbow* 276).

discuss race openly, his subconscious, made temporarily accessible by means of sodium amytal, is smeared with the byproducts of American racism.

Slothrop's paranoia during his hallucinatory episode is not reducible simply to his fear of a black other. Paranoia in *Gravity's Rainbow* functions instead a relational effect that stems from the difference between self and other — a divergence that is intensified, historically, through an increase in Western racial diversity in the mid-twentieth century. It is not this sense of difference alone, however, that makes Slothrop anxious. It is more precisely the intermingling of supposed opposites that terrifies him. The novel's recurring metaphorical intersection between blackness and shit demonstrates this source of white racial fear: "Shit, now, is the color white folks are afraid of. Shit is the presence of death, not some abstract-arty character with a scythe but the stiff and rotting corpse itself inside the whiteman's warm and private own *asshole*, which is getting pretty intimate. That's what that white toilet's for. You see many brown toilets?" (688). While waste matter is expelled from the body, the fear-inducing black excrement originates, paradoxically, "inside the whiteman's warm and private own *asshole*." This image — transgressive less for its seeming gratuitousness than for its violation of sharp racial distinctions — suggests that the black other is indivisible from the white self. Moreover, this passage links shit and blackness to "the presence of

death." For all of its figurative suggestiveness, this connection also takes on a literal dimension. Race theorist David Theo Goldberg argues, "the histories of racisms, including their histories of the present, are those of terror and death, of death's production, of terror and death in the name of identity and identification" (26).²⁶ For Pynchon, the establishment of white identity depends on the "terror and death" produced by racist ideology. The absurdity of racism, of course, is that given the structural interdependence of self and other, this violent ideology amounts to an exercise in internecine destruction.

Slothrop's paranoia, which derives from his own racial terror, is a crucial component of his quest for the Schwarzgerät and his own freedom. In his escape from a postwar network of power, Slothrop replays the fears of his Puritan ancestors at the threshold of a new era of global American power. His paranoid quest for freedom from the control exerted by an amorphous "Them" is a romantic endeavor that ignores the numerous inequalities enabled by the network of empire. In this sense, Slothrop bears comparison to Oedipa Maas who, in *The Crying of Lot 49*, pursues the W.A.S.T.E. network but remains blind to the social waste produced by American capitalism. In *Gravity's Rainbow*, the paranoid lieutenant tracks the "black

²⁶ Theo Goldberg elaborates on the connection between racism and death by turning to the work of Ruthie Gilmore. He writes: "Following Foucault, Ruthie Gilmore has gone so far as to define racism in terms of a relation to death. Racism, she notes, is the likely promotion of the premature death of those individuals and groups subjected to the debilitating terms and conditions of racist configurations and exclusions." (26).

rocket,” but sublimates a deeper terror of blackness that is integral to the ideological backbone of American empire and the global system of multinational capitalism. Despite its constant denial through formless anxiety and outright racism, blackness serves as the very foundation for American freedom, individualism, and identity formation. As Toni Morrison contends, for centuries, white Americans have used black Americans to mediate fears and identity conflicts. From slavery onward, the “black population was available for meditations on terror—the terror of European outcasts, their dread of failure, powerlessness, Nature without limits, natal loneliness, internal aggression, evil, sin, greed” (*Playing in the Dark* 38). Alongside the freedom that came to characterize the New World was “the presence of the unfree within the heart of the democratic experiment” (48). It was the enslaved populations, denied real liberty even after their official emancipation in the middle of the nineteenth century, which enabled a parasitical form of white American freedom. In precisely this way, Slothrop’s freedom and search for identity depend on the black otherness that haunts his subconscious.

The blackness that pervades Slothrop’s search for his own identity also serves as the mystery that drives Katje Borgesius: a Dutch spy who works for British intelligence and Pirate Prentice. In the final pages of *Gravity’s Rainbow*, Katje wanders through the European Zone, seeking out Slothrop who has since vanished

off the grid. During this unsuccessful search, she runs into the Herero Schwarzkommando, a group of African rocket specialists, who take her for the allegorical embodiment of Paranoia and engage her in one of the novel's many musical numbers:

She is doing a dance routine with these black sailors-ashore. Having gathered also that she is the allegorical figure of Paranoia (a grand old dame, a little wacky but pure heart), she must say that she finds the jazzy vulgarity of this music a bit distressing. What she had in mind was more of an Isadora Duncan routine, classical and full of gauzes, and — well, white. What Pirate Prentice briefed her on was folkore, politics, Zonal strategies — but not blackness. When that was what she most needed to know about. How can she pass now through so much blackness to redeem herself? How can she expect to find Slothrop? among such blackness (subvocalizing the word as an old man might speak the name of a base public figure, letting it gutter out into real blackness: into being spoken no more). There is that stubborn, repressive heat to her thoughts. It is none of your heavy racist skin-prickling, no, but a feeling of one more burden, along with the scarcity of food in the Zone, the chicken-coop, cave or basement lodgings at sunfall, the armed- occupation phobias and skulking as bad as Holland last year, comfortable in here at least, lotos-snuggly, but disastrous out in the World of reality she still believes in and will never give up hoping to rejoin someday. All that's not bad enough, no, now she must also endure blackness. Her ignorance of it must see her through (658).

Instead of a "white" "Isadora Duncan routine," Katje is subjected to a "black" dance. She finds the "jazzy vulgarity" of the musical number "disturbing." As the passage explains, her thoughts are characterized not by a "heavy racist skin-prickling," but by the persistent "burden" of blackness which she fails to understand but for which she suddenly feels responsible. For all of her expertise "out in the world of reality," Katje

realizes that the realm “she most needed to know about” was “blackness.” In fact, blackness is what she must understand in order to “redeem herself” (658). Like Slothrop, Katje perceives blackness not as an aspect of herself but as another obstacle to emancipatory redemption. Even so, it is precisely her own ignorance of race-thinking, which overcomes Katje: “Understand it isn’t *his* blackness, but her own—an inadmissible darkness she is making believe for the moment is Enzian’s” (661).

Gravity’s Rainbow focuses not on the victims of racism, but on its perpetrators. Through an exploration of metaphors of blackness, Pynchon simultaneously interrogates whiteness, which is often overlooked because of its presumed normative status.²⁷ In the process he complicates metaphors of blackness, which signify evil and death throughout Western literature.²⁸ Unlike Tyrone Slothrop and Katje Borgesius, Pynchon himself refuses to use blackness as the term that defines and enables his own aesthetic transcendence as a white postmodern writer.

Blackness, in *Gravity’s Rainbow*, proves both polysemous and paradoxical. It links up

²⁷ Ramirez ends her article “The Herero in the Harz” with a generative comment about the centrality of “whiteness” to Pynchon’s self-reflexive fiction. I expand upon this suggestion in the next section by discussing whiteness as a feature of the network of American empire. In recent years, critical race theory has commented extensively on the use of whiteness as presumably neutral standard. For example, Richard Delgado and Jean Stefancic note, “Whiteness is also normative, maybe even a kind of property. It sets the standard. Other groups, such as Indians, Latinos, Asian Americans, and African Americans, are described as *nonwhite*. That is, they are defined in terms of or in opposition to whiteness — that which they are not” (76).

²⁸ As Toni Morrison remarks about color imagery in American literature, “images of blackness can be evil *and* protective, rebellious *and* forgiving, fearful *and* desirable — all of the self-contradictory features of the self. Whiteness, alone, is mute, meaningless, unfathomable, pointless, frozen, veiled, curtained, dreaded, senseless, implacable” (*Playing in the Dark* 59).

to other terms such as “shit” and “death,” rendering a complex network of metaphor and history. This central trope also helps define the new system of control that was made possible through the wartime restructuring of power. Despite the claims to peaceful globalization and worldwide interconnection that undergirded American hegemony from the start, beliefs in both black inferiority and white supremacy informed the affective infrastructure of the American network that unfolded in the 1940s. Bringing together my analysis of American empire and racial ideology, it is that larger political, economic, technological, and literary configuration to which I now turn.

4.3 “White Network”

In the final pages of *Gravity's Rainbow*, Seaman Bodine, an American who serves on the U.S. destroyer *John E. Badass*, has a vision of an interconnected totality: “In certain rushes now, when he sees white network being cast all directions on his field of vision, he understands it as an emblem of pain or death” (741). The systemic metaphor of “white network,” which epitomizes “pain or death,” evokes the links that connect global empire and American race ideology. *Gravity's Rainbow* uses the topological form of the network to examine race as a concept that is both relational and structural. As Michael Omi and Howard Winant demonstrate with their concept of “racial formation,” race is a social, economic, and political concept that has

informed institutional and individual identity in the United States for centuries (Omi and Winant).²⁹ While the United States contributed to the defeat of a racist German power in World War II, America did not simultaneously dismantle its own racial foundation. Instead, the racial roots of the United States came to affect the burgeoning shape taken by an American power that developed into a global hegemonic network.

Gravity's Rainbow suggests that an affect of terror, which has been intensified in recent years through association with the decentralized network form, has served the growth of American power since the 1940s. Pynchon explores the ways that American cultural fantasies about organized and dangerous black networks have obscured the more insidious existence of a distributed white system of power — the “white network” that operates as the infrastructure of America’s new global order. The fear that African American and other marginalized populations will coordinate and rise up in revolt is, of course, not unique to the mid-twentieth century. In the United States, this anxiety stretches back to the threat of slave rebellions in the 1600s, the insurrection of enslaved people in Haiti in 1791, Nat Turner’s uprising in 1831, and many comparable events. The end of slavery in the mid-nineteenth century did not eliminate the white American fear of black solidarity. It merely altered its form.

²⁹ In *Gravity's Rainbow*, characters such as Tyrone Slothrop have internalized both the history and structure of American racial formation.

The dread of collective African American vengeance during post-Civil War Reconstruction, sparked by eventual racial conflicts like the Chicago race riots of 1919, carried this white American fear into the twentieth century.

During the social revolution of the Cold War years, white fears about an imminent race war intensified. The solidification of American hegemony in the mid-twentieth century brought with it various forms of collective counter-power. The Civil Rights and Black Power movements in the United States were two of the more serious roadblocks to American empire. Allying themselves with decolonization efforts around the world, these oppositional networks and diasporic configurations challenged the American neocolonial project of globalization. As historian Harold Isaacs contended in 1969, domestic race relations in the United States after World War II became inextricably chained to the nation's international status: "The racial facts of American life abruptly became vital to our success as leader, whether in pitting our claim of democratic freedom against the challenge of communist totalitarianism or in winning the trust, not to say the alliance, of the new nations" (248).³⁰ While a successful confrontation with racism in the United States could

³⁰ As Isaacs further explains, "For the United States most of all — more than for any other nation, new or old — the element of race and color has finally become a matter of central and crucial concern. Its importance cannot be separately assigned or portioned out between our internal or our external affairs. In the fundamental sense that the role of the United States as a world power will be determined by the nature and quality of the American society, the United States itself has now become the principal arena of our

strengthen the nation's authority over the Third World, the failure to address this systemic problem threatened a catastrophic conflict. As Isaacs describes a mode of terror that persists in the late 1960s, the "prime threat or prime fear is the approach of a series of racial confrontations leading to a universal race war that will drive the line of color across all the other fields of conflict that now criss-cross the globe" (236).

For a twentieth-century author such as Pynchon, born in 1937 and beginning his writing career in the 1960s, worldwide decolonization and the emergence of the "Third World" would have been significant historical processes.³¹ Especially in the years following World War II, decolonization marked the decline of European imperialism and the ascendance of American global networks that no longer relied on the logic of territorial hegemony. While the plot of *Gravity's Rainbow* takes place slightly before the proliferation of decolonization movements, it proleptically marks the edges of a dwindling international system and the transition to an American network structure. In this novel, Pynchon depicts the historical white fear of

struggle to shape the future. In that arena the principal issue, plainly put, is whether our partially opening society will open enough to include Americans who are black on the same common and equal basis as all others" (246).

³¹ In fact, even as the worldwide process of "decolonization" began as early as the end of World War I, the term itself was not coined until after World War II. Martin Thomas, Bob Moore, and L.J. Butler explain: "Translated from English, the Gallicized word *décolonisation* was not cited in French until 1952. In August of that year, leading French economic historian Alfred Sauvy also coined the phrase *tiers monde* (Third World), a deliberate evocation of the third estate of the French Revolution" (3).

decolonization and collective black power through a mostly fictionalized group of Herero survivors of the 1904 German-perpetrated genocide.³² This group of black “ex-colonials from South-West Africa” who are brought into the Nazi “secret-weapons program” at Nordhausen to construct V-2 rockets is called the “Schwarzkommando” (the “Black Command”) (74). In the final months of the war, having secretly accumulated enough rocket parts for its own V-2 missile, this black collective deserts its official work and sets off to build a new rocket. The Herero rocket is part of the group’s planned destiny — its collective suicide that will finish the extermination that the Germans started — but its ultimate target is never revealed, nor is the weapon fired within the scope of the novel. The Schwarzkommando simply amass the technical expertise and necessary components from their German managers, construct their missile, and disappear into the chaos of the undifferentiated European Zone.

As Victoria Ramirez has observed in her insightful article about *Gravity’s Rainbow*, the Schwarzkommando (also known as the “Zone-Hereros”) are the

³² While no such unit of Herero existed during World War II, historical correlates do exist. Steven Weisenburger explains: “Beneath that fiction there are, as Selmecki and Henrichsen have shown, nuggets of historical detail: chiefly, archival information and photographs revealing Herero tribesmen employed *prior to* the 1904 genocide in the service of German military units throughout South-West Africa” (61). Pynchon produces an even more detailed representation of the Herero genocide in “Mondaugen’s Story” in his first novel *V*. (1963).

primary object of terror and hatred in the novel.³³ It is noteworthy that the fear that so many characters feel toward the black rocket unit has less to do with the group's rocket than with its fledgling claim to sovereignty, which is enabled by their acquisition of the V-2 weapons technology. Myron Grunton, one of the British founders of the fictionalized international Operation Black Wing, verbalizes this fear through an extended metaphor:

Germany once treated its Africans like a stern but loving stepfather, chastising them when necessary, often with death. Remember? But that was far away in Südwest, and since then a generation has gone by. Now the Herero lives in his stepfather's house. Perhaps you, listening, have seen him. Now he stays up past the curfews, and watches his stepfather while he sleeps, invisible, protected by the night which is his own colour (75).

Managed and murdered for decades by their colonial "stepfather," the Herero are eventually brought to the heart of the European Zone: the "stepfather's house." This

³³ One of the few essays to explore the place of racial fear in *Gravity's Rainbow* is Ramirez's noteworthy "The Herero in the Harz: Pynchon's Re-Presentation of Race Relations in *Gravity's Rainbow*." Toward the end of the piece, she notes, "Terror has been cited as fundamental to the thoughts and feelings of the novel's characters, but most often terror is connected either to the real and imagined machinations of pervasive control systems the novel depicts, or it is linked in Cold War America to the dreadful reality of nuclear attack from airborne rockets. In the context of Pynchon's radical rehistoricizing of race relations, however, readers discover through the enormously irrational and terrified white response to the Hereros' presence Pynchon's oblique presentation of white America's own unwarranted fear of African Americans and other non-white people" (229). In Ramirez's reading, the novel's terror extends beyond the fear of the V-2 missile to the realm of race. With the alleged enemies of American sovereignty coming from weapons technologies and foreign threats, however, the real domestic threats to democracy, including the persistence of discrimination, have been displaced or ignored. While I draw from Ramirez's argument, this chapter is more concerned with the relationship between the metaphors of blackness and the specific history of fear that infuses American race relations. Moreover, while Ramirez takes a broadly postcolonial perspective on race in *Gravity's Rainbow*, I am interested in thinking about race in the novel through the lens of American literature and U.S. empire. Finally, departing from Ramirez, I am interested in the way that network organization, as such, both enables and represents global empire and its racist strategies.

new site disrupts the hierarchy of power between colonizers and colonized. In Grunton's extended metaphor, the chastised black stepchild evades surveillance and watches his white stepfather secretly. With a reconfiguration of power after the war, the Herero threat grows more terrifying than ever. The danger of this collective stems from a sovereign and potentially vengeful "tribal mind" that, as many white characters in the novel realize, might someday turn against its erstwhile colonial masters (317). German aeronautical engineer Horst Achtfaden expresses this fear of colonial sovereignty when he is captured by the Zone-Hereros and interrogated under the influence of sodium amytal: "he has had the disastrous luck to've been picked up by the Schwarzkommando who for all he knows now constitute a nation of their own" (451). Due to their collective cohesion, which signals the potential transition to nationhood, the Schwarzkommando pose a mythic challenge to a global imperial system that has remained largely uncontested.³⁴

Many characters in *Gravity's Rainbow* express their anxiety about the Schwarzkommando, and non-white people more generally, not by means of subconscious fear, but through overt racism. The American characters Major Marvy

³⁴ Most of the characters in *Gravity's Rainbow* treat the Schwarzkommando as a mythic story or a conjured fantasy that, once it becomes real, cannot be returned to the realm of fiction: "Who could have guessed there'd be *real* black rocket troops? That a story made up to scare last year's enemy should prove to be literally true—and no way now to stuff them back in the bottle or even say the spell backward: no one ever knew the complete spell — different people knew different parts of it, that's what teamwork *is*" (*Gravity's Rainbow* 276).

and Clayton Chiclitz, for example, speak in bitingly hateful slurs, as they pursue and seek to wipe out the Zone-Hereros (558). Chiclitz, a committed racist, owns an American toy factory, which sells the “Juicy Jap” doll and “Shufflin’ Sam, the game of skill where you have to shoot the Negro before he gets back over the fence with the watermelon” (558). While Marvy and Chiclitz’s boundless hatred demonstrates the extreme effects of racism, Soviet officer Vaslav Tchitcherine offers a more substantial, if equally severe, case study of the psychology that accompanies race ideology. Tchitcherine, we learn, is the half-brother of the Schwarzkommando leader Oberst Enzian. Even as he engages in official intelligence gathering operations, the Soviet is driven by “a compulsive need” to “annihilate” his black relation (338). The desire to destroy the other is linked to a profound self-hatred: “Tchitcherine is a complex man. It’s almost as if... he thinks of Enzian as... another *part* of him — a black version of something inside *himself*. A something he needs to... liquidate” (499). The man’s hunt for his brother, which fails, is characterized by Ahab-like solipsism and monomania. Instead of fixating on the whiteness of the whale that pervades *Moby Dick*, however, the Russian becomes hatefully obsessed with his half-brother’s blackness.

For much of *Gravity’s Rainbow*, the fear of the Schwarzkommando recedes to the background of a text that appears on its surface more interested in rocket

ballistics and German culture than racist ideologies and decolonization.

Nevertheless, this thread proves integral to one of the conspiracy plots at the heart of *Gravity's Rainbow*. From the start of the book, various governmental and corporate organizations reveal an investment in American Lieutenant Tyrone Slothrop who is observed and tracked as he passes through the European Zone. The nature of this interest, however, remains a mystery. A passing hint comes in an early passage when a group of behavioral psychologists injects Slothrop with sodium amytal "to help illuminate racial problems in his own country" (75). Beyond such suggestions, however, the deeper reason for the widespread interest in Slothrop does not become clearer until late in the novel. The underlying purpose of Slothrop's behavioral and cultural programming is never revealed or resolved. Nevertheless, in one of the novel's few explicit gestures toward the underlying conspiracy, British officer Sir Marcus Scammony explains that Slothrop's failed behavioral programming was intended to turn him into an assassin who would wipe out the Schwarzkommando. In a crucial passage that is rarely cited in Pynchon scholarship, Scammony notes, "Labour wants the American found as much as we do. We sent him out to destroy the blacks, and it's obvious now he won't do the job.... Slothrop was a good try at a moderate solution, but in the end it's always the Army, isn't it?" (615). As Scammony explains, Slothrop's psychological programming was intended as a

European pilot project that might later be expanded, on a mass scale, to manage America's own race problem: "You don't know the Americans. I do. I deal with them. They'll want to see how we do with *our* lovely black animals — oh dear, ex Africa semper aliquid novi, they're just so big, so *strong* — before they try it on their own, ah, target groups" (616).³⁵ Scammony's insinuation of an American plan to destroy its own black "target groups" exposes the genocidal foundation of American empire. However hyperbolized Pynchon's fictional conspiracy might be, its underlying racial ideology offers a clearer view of the links and nodes that make up the American "white network."³⁶

Gravity's Rainbow captures the global dimension of race-thinking. At the same time, the metaphor of the Herero stepchildren returning to their "stepfather's house" demonstrates the way that U.S. empire's global destruction connects back to an American nation built on the Native American genocide and the system of plantation slavery. Throughout the novel, the domestic and global dimensions of race prove inseparable from each other. Pynchon highlights this linkage through a crucial passage in which Blodgett Waxwing, a black market man, acquires a zoot suit

³⁵ The exception here, again, is Victoria Ramirez in "The Herero in the Harz."

³⁶ The American Major Marvy suggests the international nature of this conspiracy against the Schwarzkommando when he drunkenly announces to Tchitcherine, "Butchyew don't know the kinda pressure *I'm* gettin' f'm Paris! F'm headquarters! It's fantastic! There's people in high places wanna wipe thim 'suckers out, *now*.... Now you can *see* what these coons're try'n' t'do, *somebody* got to stop them 'fore they *do, shit* —" (565).

and a keychain for Slothrop. As we are told, these items that have travelled across the ocean have a complex genealogy that begins in the United States:

They both belonged to a kid who used to live in East Los Angeles, named Ricky Gutiérrez. During the Zoot Suit Riots of 1943, young Gutiérrez was set upon by a carload of Anglo vigilantes from Whittier, beaten up while the L.A. police watched and called out advice, then arrested for disturbing the peace. The judge was allowing zoot-suiters to choose between jail and the Army. Gutiérrez joined up, was wounded on Saipan, developed gangrene, had to have his arm amputated, is home now, married to a girl who works in the kitchen at a taco place in San Gabriel, can't find any work himself, drinks a lot during the day.... But his old zoot, and those thousands of others busted that summer, hanging empty on the backs of all the Mexican L.A. doors, got bought up and have found their way over here, into the market, no harm turning a little profit, is there, they'd only have hung there in the fat smoke and the baby smell, in the rooms with shades pulled down against the white sun beating, day after day, on the dried palm trees and muddy culverts, inside these fly-ridden and empty rooms (249).

In this passage — an elegant microcosm of the network aesthetic practiced throughout the entirety of *Gravity's Rainbow* — the domestic and global aspects of American empire appear indivisible. This story focuses on a single victim of the racially-motivated Zoot Suit Riots, which began with Chicano populations in East Los Angeles and spread to numerous conflicts between whites and marginalized “zooters” from San Diego to Detroit to Toronto (Weisenberger 157). Despite the local “East Los Angeles” site of the event, Pynchon treats the brutal fate of Ricky Gutiérrez as an aspect of a global network that extends from the west coast of the United States to Monaco, where Slothrop unknowingly acquires the Chicano

amputee's suit. The ironic declaration of there being "no harm" in Waxwing "turning a little profit" on the suit indicts a vast neocolonial white system, riddled with contradictions, which facilitates the spread of capitalism by any means necessary. This system, glimpsed but never fully comprehended, is precisely the "white network" that fills Bodine's "field of vision" and serves as a contemporary "emblem of pain or death" (741).

The white network that appears at the fringes of Slothrop's consciousness and is hinted at throughout *Gravity's Rainbow*, is constantly overshadowed by fears about a black network. While the Schwarzkommando are a fictionalized collective, the anxiety that Pynchon identifies has a very real historical correlate. In the years following World War II, colonized people in the Philippines, India, Laos, Libya, and numerous other countries began to organize and stand up against major imperial powers. Along with these revolutionary uprisings, which disturbed the Western imagination, movements of racially oppressed people began to gain prominence in the United States. From the Zoot Suit Riots of 1943 to the beginning of the African American Civil Rights movement in the mid-1950s, people of color began to participate in collective resistance to the dominant racial order.³⁷

³⁷ Immediate precursors to such movements and uprisings can be tracked to such cultural movements as America's Harlem Renaissance, French West Africa's Negritude, and Haiti's Indigenism.

In *Gravity's Rainbow* perhaps the most striking figure of the fear associated with black organization is the young Malcolm X who appears in Slothrop's terrifying sodium amytal hallucination of the Boston Roseland Ballroom. In addition to his work in the United States as a political force and a leader of the Nation of Islam, Malcolm X was also vocal in the global decolonization struggle. As historian Peniel E. Joseph explains, Malcolm X influenced the "intersection with Cold War politics, its eclectic black nationalism, ties to the Old Left, and internationalism" that came to characterize the Black Power Movement (7).³⁸ The connections he made between Black Nationalism and Third World struggles shaped the diasporic concerns of later organization like the Black Panther Party, which came to advocate an "intercommunalism" that linked domestic and anti-colonial struggles (Rhodes 8). These new global ties formed by a people that a majority of white Americans thought to be incapable of political organization in the United States, let alone around the world, proved terrifying to those in power.

More than any other late twentieth-century American development, the Black Power movement that evolved from Malcolm X's racial militancy, inspired white

³⁸ For example, in 1960, Fidel Castro met with Malcolm X thereby "defying the Cold War's racial and ideological boundaries" (13).

fear and paranoia.³⁹ In *Gravity's Rainbow*, Slothrop's vision of being outnumbered and sodomized by Malcolm X represents a personal white fear of black sexuality, but it also invokes a cultural anxiety about the structural vulnerability of American power that was widespread by the late 1960s and early 1970s when Pynchon composed the novel. Admittedly, the text does not offer a detailed exploration of actual decolonization or Black Nationalist movements. Nevertheless, it investigates the white fantasy inspired by these movements — the nightmare of a revenge exacted by a people who have been enslaved, discriminated against, and slaughtered for centuries. As Pynchon suggests, even as white culture has routinely dismissed black community as an absurd development, the specter of black organization has simultaneously haunted the white American imaginary.⁴⁰ Slothrop

³⁹ Groups such as the Black Panther were targeted by the FBI's covert COINTELPRO (Counter Intelligent Program), which sought to infiltrate and disrupt subversive organizations in the United States.

⁴⁰ For an extensive discussion of the denial of black community and organization in the United States, see Jeanne Theoharis's essay "'Alabama on Avalon': Rethinking the Watts Uprising and the Character of Black Protest in Los Angeles" (in Joseph). Theoharis explains about the Watts uprising, "Cast through the misconception that sustained political action was largely absent in the urban poor North, Black Power is shown born out of fire and looting as opposed to indigenous political organizing, organic theorizing, and varied tactical strategies. In short, Black Power is framed as the absence of political organizing" (30). Expanding the scope of this contention, she adds, "Numerous social scientists and historians have linked structural changes in the economy, black Northern migration and urban segregation with a decline of community institutions and the development of a pathological set of behaviors among an isolated and poor black community. The urban black poor are often portrayed as a socially disintegrated, postindustrial underclass too busy surviving and too alienated from mainstream culture to theorize and mobilize against their oppression" (31). Instead of a story of "ghetto nihilism and alienation," Theoharis's story follows organized struggles against terrible inequalities (34).

experiences this terror only at a subconscious level, but it drives his behavior and shapes his alleged mission to exterminate the Schwarzkommando.

Instead of validating the white fear of black organization, *Gravity's Rainbow* shifts the reader's attention to the more historically destructive and legitimately terrifying "white network" of empire. Pynchon complicates the common parallel between blackness and death by demonstrating the incomparable destructiveness of a value of white purity. Indeed, it is no coincidence that the German captain who is the most networked character in the novel goes by both the name of "Weissmann" and "Blicero." His official identity as the sadomasochistic "white man" gradually grows indistinguishable from his mythical identity as "Dominus Blicero": the lord of death. Weissmann's perverse mission of wrapping his submissive lover Gottfried, a model of perfect whiteness, in the blackness of Imipolex G and firing him off, in a deadly V-2 rocket, perfectly captures the fatality of whiteness. It is worth noting that Pynchon's realignment of death with whiteness throughout the novel resembles the imperative of the actual Black Power movement of the 1960s and 1970s. As historian Komozi Woodard explains, this social movement saw itself as a vital defense "against white terror and intimidation" (Woodard in Joseph 62). *Gravity's Rainbow* foregrounds the destructiveness of precisely this mode of white terror: the new viral form of "American Death" foreseen by Weissmann on the eve of World War II (722).

Pynchon's network narrative suggests that the production of the atom bomb, political tensions with the Soviet Union, neocolonial economic exploitation, and support of racial segregation represented a far greater threat to global security than the emergence of black community or collective opposition ever could. The novel suggests that white Americans should stop fantasizing about the vengeance of the oppressed and should instead spend their energy striving to understand the interconnected system that gave rise to new forms of control and injustice in the mid-twentieth century. As David Theo Goldberg has observed, the articulation of social threat by racist ideologies carries with it a deep-seated irony. In fact, "the group — the 'population' — seen as threatening is the one actually threatened: with alienation, intimidation, incarceration, marginalization and externalization of one kind or another, ultimately, even with extinction" (Goldberg 29). In this case, white fear obscures the deeper threat of whiteness.

In the end, *Gravity's Rainbow* does not traffic in utopian alternatives to our contemporary network of power. Nevertheless, Pynchon is a believer in the inevitability of counterbalances. Most notably, at the end of the novel, the paranoia-inducing "They-system" that obsesses Slothrop produces an oppositional "We-system" (638). One passage announces, "Just as there are, in the World, machineries committed to injustice as an enterprise, so too there seem to be provisions active for

balancing things out once in a while" (580). Following this logic, the novel leaves open a space for a more collective network that might come to replace a web of white terror. In the final scene of the novel, as a London cinema is hit by a V-2 rocket, the victims-to-be are encouraged to sing along to a hymn composed by Tyrone Slothrop's Puritan ancestor William. The song begins:

There is a Hand to turn the time,
Though thy Glass today be run,
Till the Light that hath brought the Towers low
Find the last poor Pret-rite one... (760).

Merging the deterministic language of Calvinism with a secular sentiment of political hope, this song celebrates the preterites who suffer at the hands of the powerful elect. Even on the verge of death, at the threshold of disaster, Pynchon maintains an aesthetic zone that might be populated by those people who have been displaced and driven to the margins of society. With the final line of the novel, he encourages a push against the system of control, the white network, which has organized global domination. Opening his own network narrative to the reader, Pynchon ends with an invitation to a collective song of solidarity: "Now everybody—" (760).

4.4 American Worlds and Literary Networks

Since the mid-twentieth century, the language of networks has painted a picture of American totality that serves a strategic role similar to the discourse of the

“postwar” and “globalization.”⁴¹ The global imperative to order implied by the concept of the network and its related metaphors has obscured American worldwide military interventions, economic exploitation of the Third World, and the domestic social chaos of the period after World War II. Even as the language of networks has invested America with extensive, expandable, and adaptable power, it has also gestured toward the superpower’s structural precariousness. Indeed, contemporary American power could not be anything but vulnerable for two reasons. First, injustices do not go unopposed for long. Even without overt colonial wars, the neocolonial strategies of American power, including the asymmetries created through the expansion of the system of multinational capitalism, have produced numerous populations — from Latin American farmers to Middle Eastern extremists — that harbor animosity toward the United States. Second, for all the talk of freedom, American liberty in this global era is highly contingent. From the start, it has been dependent on Third World others and the underclasses of its own nation. Indeed, at the heart of racial terror is the paranoid fear that material resources and

⁴¹ Pynchon’s explicit critique of the concept of the “postwar” is worth noting. In a scene that takes place on August 5, 1945, the very eve of the Hiroshima bombing, “a crowd of Army personnel, American sailors, NAAFI girls, and German *fräuleins*” perform a song that stands as “an innocent salute to Postwar” (593). The juxtaposition of this European celebration with the catastrophic nuclear slaughter of an entire Japanese city in the Pacific theater creates a dark irony. Even a world power battling a racist Nazi regime in the context of a war — an allegedly exceptional but nonetheless legal contest between white powers — can wipe out a non-white population in a moment seen by most as belonging to the “postwar.” As this passage suggests, the language of the “post” signals not an end but a transformation of imperial power.

power might someday be redistributed to those marginalized people on whose suffering American power was initially established.

Dismissing the United States as an evil empire, of course, is neither productive nor completely accurate. In fact, American culture and politics since the mid-twentieth century suggest a much more multifaceted national identity. As Amritjit Singh and Peter Schmidt contend:

The U.S. may be understood to be the world's first postcolonial *and* neocolonial country. Anti-colonial resistance at its founding worked to secure an economy that thrived by appropriating the labor of racially-defined 'aliens' not allowed the 'inalienable' rights of full citizenship. While the U.S. defined itself as the world's first independent and anti-colonial nation-state it simultaneously incorporated many of the defining features of European colonial networks — including the color-line — into its economic and cultural life (5).

The language of networks proves especially helpful in alternating between the postcolonial and neocolonial attributes of the United States. As the history of American empire demonstrates, networks can both disrupt and connect. The concept of the network — much like the frequently related concept of the “global” — is problematic when it signals a vision of worldwide totality and American-infused universalism. As Armand Mattelart suggests in *Networking the World*, “In English the word global is synonymous with ‘holistic.’ Unlike the French word Mondialisation (literally, ‘worldization’) and its equivalents in various Romance languages, which are limited to the geographical dimensions of the process, ‘globalization’ relates

explicitly to a holistic philosophy, that is, to the idea of a totalizing or systemic unit” (77). Aesthetically, *Gravity’s Rainbow* gestures toward a more connective connotation of the network, which comes closer to Mattelart’s non-totalizing “worldization.” Indeed, in the final pages of Pynchon’s novel, the reader is presented with the tarot reading of Captain Weissmann. The final card in his tarot offers an open-ended vision of a still-ambiguous global transformation: “His future card, the card of what will come, is the World” (749). On the one hand, the “World” might simply be a plane across which the “white network” will expand and cover the entire planet. On the other, the “World” might more closely represent the generative interconnection, the fragile “edge,” embodied by Pynchon’s network narrative itself.

Arguably, the most fear-inducing aspect of *Gravity’s Rainbow* is not the terror of blackness or the revenge of the oppressed. The primary object of terror is the text itself: the gargantuan, impenetrable, postmodern literary network that defies cause-and-effect chronology, forestalls a comprehensive reading, and threatens a breakdown in signifying linkage.⁴² For all of the local pleasures that the novel allows, the overall text offers little satisfaction in the way of mastery or closure. If we

⁴² The potential breakdown of the signifying chain brings to mind Jacques Lacan’s account of schizophrenia. In describing the work of the major postmodern artists and poststructuralist writers, Fredric Jameson posits this mode of schizophrenia as “a suggestive aesthetic model” (*Postmodernism* 26). In the language of networks, a similar argument could be made by arguing that *Gravity’s Rainbow* oscillates constantly between excessive connectivity and total disconnectivity. For more on schizophrenia as an aesthetic model in Pynchon’s work, see Stefan Mattessich’s *Lines of Flight: Discursive Time and Countercultural Desire in the Work of Thomas Pynchon*.

take the novel's recurring thermodynamic and cybernetic metaphors of open systems seriously, no closed and definitive interpretation is possible. Despite the most diligent efforts of the literary critic or devoted reader, *Gravity's Rainbow* remains an open network. And it is this openness that makes the textual network terrifying, but also generative of an endless stream of emergent meanings and new forms of connectivity. *Gravity's Rainbow* experiments with nonstandard modes of narrative; it gives rise to thought styles that cohere thematically rather than chronologically; it produces cognitive modes that operate according to unconscious counter-logics.⁴³

Instead of the American global network of empire that arose in the middle of the twentieth century — one founded on terror, isolation, racism, and violence — *Gravity's Rainbow* offers a glimpse into a different structure of connection. Pynchon realizes that the networks of global power will lead inevitably to injustice and homogenization. As race theorist Stuart Hall argues, we need a network of difference: not a collection of individuals and concepts that are made alike through association, but a structure in which truly dissimilar entities can nonetheless be

⁴³ Network metaphors describe not only the novel itself, but the ideal way of engaging the text. My understanding of *Gravity's Rainbow*, however partial, would be impossible without networks of other readers, whether other scholars working on Pynchon or the students with whom I have read and discussed the text. I have found that a mode of associative discussion and distributed brainstorming yields even greater returns from the novel than a focused argument-driven engagement.

connected. Hall contends that we must pursue a “complex structure” in which “things are related, as much through their differences as through their similarities” (Hall in Essed and Goldberg 44).⁴⁴ This comment is equally applicable to racial structures as it is to broader networks that connect class, gender, sexuality, religion, politics, and other facets of social identity.

To think a network at all, it is necessary to mediate between the Scylla of reductionism that assimilates all nodes in an undifferentiated totality and the Charybdis of pluralism that imagines endless nodes of an overwhelming infinity. Ideally, network thinking should encourage us to see different elements not as epiphenomena of each other but as discrete components that relate in historically rich ways. From an analytic standpoint, an interplay of differences is necessary for making incisive distinctions about the world. From a practical standpoint, that same interaction serves as a structural challenge to racial divisions and capitalist hierarchies. Through its network aesthetics, *Gravity's Rainbow* accomplishes precisely this complex maneuver. Pynchon connects but does not blur such disparate populations as the victims of the 1904 Herero genocide, the indigenous Kazakhs of Kyrgyzstan who were displaced and murdered by Soviet troops after the 1916 uprising, the Jewish people who suffered the Nazi Holocaust in the 1940s, and

⁴⁴ In a more theoretical vein, Hall's vision of diversity without sameness is modeled after Marx and Althusser's concept of a “complex unity” (45).

African Americans segregated and mistreated in the U.S. throughout the twentieth century. Through its numerous episodes, Pynchon examines the relationship between American empire and the history of imperialism that preceded it, without ever collapsing the two.

From the Middle Passage, the Haitian Revolution, and plantation slavery to European imperialism, Civil Rights, and anti-Vietnam War movements, the United States has participated in numerous “world-shaping events, both as the oldest self-conscious democracy and the youngest ‘superpower’ with a sense of its own ‘manifest destiny’” (Singh and Schmidt vii). *Gravity’s Rainbow* draws from both the strategic language of American globalization and the more inclusive turn to the entire world initiated by oppressed people in the mid-twentieth century. Pynchon’s masterpiece is a network novel that draws from numerous languages and cultural traditions. It is also an American novel that both subverts the U.S. nation-state structure and reflects upon the swelling of national hegemony. The continuing analysis of race and racism that is so central to American literary studies must continue expanding its scope to include “transnational” and “world” literature without using those frames to deflect difficult social and historical questions. As Goldberg explains, “Race figures the national even as it transcends it; and in transcending race gives the nation its transcendental character, its larger, ultimately

globally extensionalist imperative. Fashioned in the expansive colonial and imperial laboratories of euro-modernities, there's a sense too in which the logical reach of race was inherently extra-national, was drawn inevitably to fulfill itself colonially, imperialistically" (Goldberg 7). Thinking the global dimensions of race can help us better understand how the discourse of American networks has paradoxically complicated the possibility of interconnection. It is only by grappling with such irresolvable contradictions that we might produce connective edges capable of joining disparate nodes in a network of worldwide justice.

Chapter 5: Wired: The Network Forms of David Simon’s “Other America”

And all the pieces matter.

— Detective Lester Freamon, *The Wire*

In the third season of the critically acclaimed HBO television series *The Wire*, a montage sequence depicts members of the Western district Baltimore police department making arrests and forcefully herding groups of recalcitrant drug dealers into vans. As one outraged “corner boy” is shoved into a police vehicle, he screams out, “Fuck y’all. We in America!” Shutting the door behind him, veteran officer Michael Santangelo informs the dealer that he is actually not in America but in “West Baltimore.” The setting of *The Wire* — and according to creator David Simon the primary character of the show — is postindustrial Baltimore at the start of the twenty-first century.¹ Baltimore, as social theorist David Harvey explains, is a city plagued by urban fragmentation, homelessness, unemployment, crime, racial and class discrimination, chronic poverty, failing public schools, and a life

¹ See, for instance, Bret McCabe’s interview with Simon in which he asks, “Has there been a personal favorite character for you on the show?” Simon responds, “Baltimore. I always get this question and I always answer the same. I love when small, local, and idiosyncratic truths find their way onto the screen, even if they are tangled and tortured and fictionalized.”

expectancy that “is among the lowest in the nation and comparable to many of the poorer countries in the world” (136).

Through sixty hour-long episodes and five seasons that aired on HBO between 2002 and 2008, *The Wire* demonstrates how intersecting nodes of the Baltimore city network — law enforcement, the drug trade, the legal apparatus, the prison complex, the school system, segregated city zones, political agencies, and media outlets — serve as a microcosm of the poverty-stricken and discriminatory system of American capitalism.² At a quick glance, the program could be mistaken for a police procedural focused on the American drug war. A close examination, however, reveals that the show complicates both the form and content of the standard crime drama. Simon, who has in numerous interviews himself contributed a bounty of sophisticated analysis of his own series, remarks that *The Wire* is fundamentally “about untethered capitalism run amok, about how power and money actually route themselves in a postmodern American city, and, ultimately,

² In a sense, each season of the show focuses on different pieces of this network, but there is a constant intermingling of areas. Each season builds cumulatively on the one that precedes it. In a 2007 interview with Nick Hornby, Simon offers the following summary: “First season: the dysfunction of the drug war and the general continuing theme of self-sustaining postmodern institutions devouring the individuals they are supposed to serve or who serve them. Second season: the death of work and the destruction of the American working class in the postindustrial era, for which we added the port of Baltimore. Third season: the political process and the possibility of reform, for which we added the City Hall component. Fourth season: equal opportunity, for which we added the public-education system. The fifth and final season will be about the media and our capacity to recognize and address our own realities, for which we will add the city’s daily newspaper and television components” (Simon in Hornby).

about why we as an urban people are no longer able to solve our problems or heal our wounds” (Simon in Hornby). In order to represent the structure of capitalism, *The Wire* uses a number of formal strategies, both narrative and visual. Critic John Kraniauskas has observed, “As it jumps from scene to scene, [the show] travels between different characters, the social spheres they inhabit and work in (institutions), as well as their locations (streets, offices). Thus all narratives are interrupted and crossed by others, looping back and forth, such that at and through each level – episode, season and series — *The Wire* resembles a collage or a montage of segments” (28). The juxtapositions, intersections, and linkages that characterize the television series adopt what I have been calling a network aesthetic. Through formal and stylistic interconnections, the show explores the network sublime of late capitalism.

The Wire makes up a narrative network consisting of institutional nodes held together by myriad social connections. Each season begins in medias res — not with origin stories but with systemic architectures that begin gradually to unfold in the viewer’s imagination. Instead of a clear beginning and ending, each police case in the series reveals potential links and loose threads that outline, but never fully disclose, a complex network. Detective Jimmy McNulty — the closest character that the show has to a protagonist — observes that to perform meaningful police work,

the investigators need to “keep gathering string” until they “can find a way in.”³ In place of seamless, open-and-shut cases narrated from an omniscient perspective, *The Wire* depicts an immanent world that can be accessed only incompletely through the careful acquisition of “string.” Simon explains, “I decided to write for the people living the event, the people in that very world.” He describes all of his shows, including NBC’s *Homicide* and HBO’S two miniseries, *The Corner* and *Generation Kill*, as “travelogues” that immerse the audience in “a new, confusing, and possibly dangerous world that he will never see.” As Simon speculates about the ideal viewer of his shows, this person is likely a stumbling participant rather than an expert insider: “He likes not knowing every bit of vernacular or idiom. He likes being trusted to acquire information on his terms, to make connections, to take the journey with only his intelligence to guide him” (Simon in Hornby).

The Wire is a show that is less about the standard televisual trappings of linear storytelling — complete with suspenseful seductions and explosive climaxes — than about the structures of social institutions.⁴ The series demonstrates that understanding form, whether literary or social, is integral to making sense of the

³ While McNulty functions, at times, as a kind of protagonist in *The Wire*, he disappears almost completely from the show’s fourth season. Other major characters will also remain absent from entire episodes. In this way, the characters serve as secondary elements in the network of Baltimore that is the show’s primary concern.

⁴ In Mary Douglas’s sense, the show is about social structures and their effects. For more, see: *How Institutions Think*.

foundational contradictions of American democracy and multinational capitalism. By representing the irreducible particularity of Baltimore's internal ecology, the program works through the interplay between institutional and social networks in contemporary America.⁵ Scholarly engagements with *The Wire* over the last few years have produced sophisticated discussions of its treatments of capitalism. Nevertheless, there has not yet been an adequate engagement with the way that the show's literary and televisual forms shape and inform its representation of American sociopolitical systems.

The Wire is unquestionably an American work, but it draws from and reconfigures forms that are not generally associated with American cultural production, especially in the realm of contemporary televisual media. Three of these forms are the social network, the Victorian multiplot novel (along with its cinematic afterlives), and the Greek tragedy. Through a focus on these social and literary structures, Simon and his fellow writers investigate different networked forms. In doing so, they enable a radically different conception of American politics and its numerous internal interconnections.

⁵ The show renders what so many theorists of postmodern urban spaces fail to achieve. As critic Paula Geyh puts it about theories of spatiality, "even the best theorists of postmodern spatiality, such as David Harvey, Edward Soja, Manuel Castells, and Saskia Sassen, have generally (though not always) considered the spaces of the postmodern era as entities unto themselves, apart from the subject who create and inhabit them" (11). Instead, she herself studies "space and subjectivity as fundamentally interrelated and mutually constructing" (11). As I suggest in this chapter, *The Wire* accomplishes a similar feat in its exploration of social networks.

5.1 “A Case that Goes Everywhere”: Social Networks and Capitalist Ecologies in *The Wire*

Soft link break the chain.

— Preston “Bodie” Broadus, *The Wire*

Even as *The Wire* quickly builds toward a network aesthetic in order to generate a formal web of interconnections, the first season is overrun with centralized hierarchies that organize the Narcotics and Homicide divisions of the Baltimore police department.⁶ Instead of distributed links, the show begins with stratified chains. Cedric Daniels (an authoritative yet sympathetic black police lieutenant who works his way up to the top rank of commissioner by the fifth season of the show) is assigned to lead a special Major Crimes Unit detail in pursuit of Avon Barksdale: the leader of the Westside Baltimore drug trade. As he takes command of the unit, Daniels explains to the rebellious Detective McNulty, “Chain of command, detective. That’s how we do things down this end of the hall.” The police “chain of command” runs from officers to lieutenants all the way up to the police commissioner. The drug dealers have comparable hierarchies that extend

⁶ Technically speaking, hierarchal structures can also be classified as networks. David Singh Grewal, for examples, distinguishes between chain or line networks (composed of series in a single line), hub or wheel networks (as with telephone companies or commercial airlines), and clique or full matrix networks (for example, communities where everyone speaks the same language). Alexander Galloway charts a similar classification of structures that includes centralized, decentralized, and distributed networks.

from low-level “hoppers” to mid-level “dealers” all the way up to top bosses like Barksdale. The similarities between these chains of leadership are invoked and highlighted directly in montage sequences that conclude each season with a series of parallel promotions and demotions on both sides of the drug war.

Despite noteworthy similarities, there are organizational differences between the police department and the drug distribution circuit. Unlike the prohibitively bureaucratic police structure, the drug network uses more flexible and decentralized protocols. In one scene, Lieutenant Daniels is ordered to hit a stash house and seize any drugs that are uncovered in the raid. The problem, as McNulty puts it, is that the dealers “change stash houses every other day.” The warrant only allows a raid on a building that served as a drug stockpile several days prior and has since been vacated. Learning from this early inability to adapt, the Major Crimes unit gradually begins to understand the shifting shape of the Barksdale drug operation. They represent this changing network visually on a bulletin board that is filled with surveillance photos, suspect names, and lines of relationship among the known players. Later, when Detectives Freamon and Pryzbylewski search for a pattern in the assemblage of storefronts and vacant buildings owned by Avon Barksdale, this financial network is represented visually as a map of Baltimore with colorful crisscrossing lines that connect different nodes. These literal maps of social and

financial relations, which grow in complexity throughout the seasons, take the shape of a web. Such graphs emphasize that police work is a prolonged process of connecting the dots and not, as is the case in television police dramas like the CBS show *CSI*, of merely solving episodic cases.⁷

The Wire emphasizes the importance of structural relations through the centrality of communications networks. During the Barksdale case, Daniels's unit comes to rely on a huge technological network of walkie-talkies, cloned pagers, and wiretaps. Subsequent seasons feature investigations that require cloned computer software, text message surveillance, decoding efforts to decrypt information-laden photographs, and even computer-generated visual models of a new drug communication network that relies on a system of disposable cell phones. Unlike most other televisual police procedurals, *The Wire* does not fetishize new technologies or make them the central narrative component. Instead, it explores the way that technology both improves and limits investigation into social structures.⁸ Unlike the FBI — an organization that the program depicts working with computers, live video surveillance, and fiber-optic lenses — the underfunded Baltimore

⁷ This interconnection is evident in episode seven of the first season in which Officer Michael Santangelo gets a break on a murder case when Omar Little (who is helping out on the unrelated wire case) offers details about an unrelated murder.

⁸ One negative representation of technological applications, for instance, appears in the third season when police majors are required to use PowerPoint software during COMSTAT meetings to update the Commissioner and Deputy Commissioner about criminal activities in their districts. This technology serves as a platform for falsified statistics that fail to depict the systems of crime in Baltimore.

Homicide division still uses typewriters in the early years of the twenty-first century. As McNulty discovers, Barksdale's crew also uses comparatively low-tech "throwback" pagers instead of cell phones. It turns out, however, that the Barksdale technological protocol has less to do with cost effectiveness than with strategy (pagers, unlike cell phones, are not traceable). Instead of setting up a sophisticated wiretap, McNulty adapts and proposes the idea of cloning the dealer pagers by copying their frequency so that the police investigators register a page every time the target receives one. Even after this modification, however, the drug traffickers change their communication mode as soon as they learn about the cloned pager tactic. Recognizing the dynamic nature of this process, Detective Lester Freamon remarks, "Every time we come at them, they learn and adjust."

Much like networked military conflict in which national governments and oppositional militias are constantly innovating to adapt to each other's systems, the actors of the domestic drug war alter their operational networks in response to moves made by Narcotics investigators. *The Wire* plays extensively with this contemporary network warfare analogy. In the third season, Detective Freamon employs the language of network science as he talks the rest of the Major Crimes Unit through a network graph produced thanks to painstaking pattern analysis performed on dropped phones, which retain recently dialed numbers in their

memory.⁹ As Freamon explains, “Check this out. This is the pattern of a closed communication network. Something you'd expect from a drug organization.... With these burners, with this particular company, you don't need subscriber information. Our data shows that over 92% of the calls were made within this network, with the average call lasting less than a minute. Again, suggestive of drug trafficking.”¹⁰ As it turns out, even these connections are not sufficient to catch any of the involved players because, as Freamon explains, the data they gather is “all historical.” “We can give you the network,” he tells his unit, “no problem but by then it's a week old and they've dumped their phones.” Ultimately, making a case against Barksdale's business partner Stringer Bell requires yet another technological adaptation, which takes the form of a gadget called the Triggerfish machine that pulls numbers directly off of cell towers. As Freamon observes, the drug organization cannot “change and adjust” to technology they do not understand.

Technological networks in *The Wire* are closely tied to social networks: a concept that the series radically reconfigures. Through its five seasons, the show's formal experimentation, at both the level of narrative and the televisual medium,

⁹ The language of “systems,” “networks,” and “connections” recurs in many contexts (social, political, economic, and technological) throughout the show. At the end of the fourth season, for example, the sociologist Parenti is shown giving a presentation “learning adverse” students that includes a chart and a network graph.

¹⁰ Freamon also uses the concept of network hubs when he points to a well-connected point in the network: “Now, this user here, he serves as a clearing house. He receives calls and initiates interactions. He coordinates the show.”

enters into conversation with the social scientific study of interconnection, especially the method of “social network analysis.” A brief history of this interdisciplinary methodology demonstrates its departure from preceding analytic techniques and provides a key context for David Simon’s aesthetic reconfiguration of this scientific approach. Social network analysis emerged over the course of the twentieth century as a method of mapping assemblages of actors represented as points or “nodes” that are connected by ties or “links” (Grewal 182). The vocabulary of “social networks,” however, only entered the social sciences in a prevalent way in the 1960s and 1970s,¹¹ a period that also saw the emergence of the related critical approach of “world-system analysis.”¹² Sociologists David Knoke and Song Yang explain the difference between the social network approach that arose in the late twentieth century and

¹¹ The roots of this methodology can be traced back to Georg Simmel’s work at the turn of the twentieth century as well as to research in psychology and anthropology beginning in the late 1930s. It was not until the late twentieth century, however, that the study of social networks was popularized by psychologist Stanley Milgram’s “small world” or “six degrees of separation” thesis, which contends that everyone in the world is connected to everybody else through a small number of intermediaries. Later, this seemingly boundless theory proliferated through mass culture in the form of the “Kevin Bacon Game.” This game was invented by Craig Fass, Brian Turtle, and Mike Ginelli who documented the idea in their book *Six Degrees of Kevin Bacon*.

¹² Several social science debates in the 1970s about core-periphery models, dependency theory, Marxism, and total history produced world-systems analysis, an approach invested in historical structures and cycles. Immanuel Wallerstein, one of the key practitioners of the approach, characterizes the method as relying on interconnection: “Part of the problem is that we have studied these phenomena in separate boxes to which we have given special names — politics, economics, the social structure, culture — without seeing that these boxes are constructs more of our imagination than of reality. The phenomena dealt with in these separate boxes are so closely intermeshed that each presumes the other, each affects the other, each is incomprehensible without taking into account the other boxes” (x). Ferdinand Braudel’s work on the history of capitalism is considered one of the key precursors to this area of study and influenced critics such as Wallerstein and Giovanni Arrighi.

research methods that dominated in earlier years: “Many social sciences, possibly a large majority, assume that actors make decisions and act without regard to the behavior of other actors.... In contrast, network analysis explicitly assumes that actors participate in social systems connecting them to other actors, whose relations comprise important influences on one another’s behaviors” (Knoke and Yang 4). In this sense, social network analysis attends to the context and structure of social life in order to achieve cross-level analyses of individual actors who exist within larger systems.

For all of its innovations, early social network analysis still tended to treat networks as *static* systems. Contemporary network scientists, however, have discovered that these structures are, in fact, constantly evolving. The televisual style of *The Wire* channels this insight by mapping a dynamic system of social relations. Theorists Jeff Kinkle and Alberto Toscano have observed that, by representing these interconnections, David Simon’s show produces something that aspires to Fredric Jameson’s aesthetic of “cognitive mapping.” Jameson defines “cognitive mapping” as the “mental map of the social and global totality” that can “enable a situational representation on the part of the individual subject to that vaster and properly unrepresentable totality which is the ensemble of society’s structures as a whole”

(*Postmodernism* 415).¹³ On the one hand, *The Wire* produces precisely a cognitive map. It does so through a network aesthetic that renders the sundry nodes of the social whole through narrative and visual links. On the other hand, the show challenges the abstractions inherent in the concept of mapping by attending to the raw particularities of Baltimore life. Instead of producing a stable map of pre-established social categories, as is frequently the case with traditional applications of social network analysis in both science and critical theory, *The Wire* explores the structure of contemporary capitalism by representing a messier and less easily categorized network.

Simon's show both registers and challenges aspects of contemporary social network theory. In mapping social life, *The Wire* does not confine characters to unchanging coordinates nor does it quantify relationships among actors.¹⁴ In this sense, the series operates as an aesthetic counterpart to "actor-network-theory," which was formulated by science studies critics Bruno Latour, Michel Callon, and John Law in the 1980s as an alternative to traditional social network analysis. Instead of regarding the "social" as a stable concept, Latour explains that actor-network-

¹³ Jameson explains that cognitive mapping, like Althusser's famous definition of "ideology" before it, stresses "the gap between the local positioning of the individual subject and the totality of class structures in which he or she is situated, a gap between phenomenological perception and a reality that transcends all individual thinking or experience" (415).

¹⁴ Admittedly, quantitative data can offer a powerful starting point for analysis. On the other hand, it can also turn concrete phenomena and relationships into total abstractions.

theory treats the social as “a process of assembling” and a mode of dynamic interconnection (*Reassembling the Social* 1). The “social” is about tracing connections and associations. Instead of grand theories of arrogated social groupings such as “classes” or “races” or “nations,” Latour urges researchers to observe particular actors and situations. A richness of analysis, he suggests, emerges from the description of particularity that is obscured when we produce theories of abstract wholes. As he puts it, “society is the consequence of associations and not their cause” (238). Along these same lines, *The Wire* begins with singular associations instead of a set theory of the social.

As I suggested at the start, the series engages in vertical social mapping within organizations, such as the police department and drug organization networks, but perhaps more significantly it extends its analysis horizontally among different cross-sections of Baltimore.¹⁵ Technological networks, for instance, come to trace not merely the structure of the Baltimore drug trade that interests the Major Crimes Unit, but also more expansive social networks. The program’s eponymous “wire” serves as a mode of inter-institutional surveillance, but it also enables interconnection on a formal level. In the first season, Wallace (a sixteen-year old

¹⁵ Kinkle and Toscano write, “While the first season largely revolves around the drug trade, subsequent seasons expand the scope of the show to cover de-industrialisation, city hall, the school system, and the media. Each of these ‘worlds’ is mapped both vertically (making explicit internal hierarchies) and horizontally (tracking their interaction with the other ‘worlds’ spread throughout the city).”

hopper working for D'Angelo Barksdale's crew in the Baltimore low-rises) recognizes a boy named Brandon who has been robbing the crew's stash houses. He calls in the discovery, thereby setting off the chain of events that leads to the target's death. Since this sequence of events takes place late in the evening, no one in the Major Crimes unit is present to take notice of the multi-directional communication that unfolds surrounding the murder. Nevertheless, the computer that is automatically tracking the dealer pagers registers the entire succession of exchanges among members of the Barksdale crew as they locate and murder Brandon. In the final moments of the episode, the camera cuts between the live pursuit of Brandon by the members of Barksdale's "muscle" and the Major Crimes computer, which is dramatized using the visual of numbers appearing on a screen and its corresponding modem audio. This computer registers all of the pages, functionally recording a network map of the murder. In this scene, technology (both the computer within the diegetic space and the televisual camera itself) registers, but is not fully coextensive with, the social networks that make up Baltimore. The opening shot of the very next episode extends this metaphor by slowly tracking an electrical wire that runs from Brandon's dumped, lifeless body across a couple backyards to the window of Wallace who initially identified the thief without having murdered him directly. In

this shot, the technological wire represents a material connection between Wallace and the deceased Brandon.¹⁶

Along with technology, the key nonhuman actor that connects characters from different socioeconomic and institutional backgrounds is money.¹⁷ In the first season of *The Wire*, Detectives Greggs and Carver follow drug money passed from a Barksdale mid-level dealer to a man in an expensive car, discovering that the \$20,000 they apprehend is headed to the office of State Senator Clay Davis. As the ties among law enforcement, the drug trade, and state politics dawn on Daniels, he observes, "I'm bringing in a case that goes everywhere." In a moment of frustration, he tells his wife: "See this is the thing that everyone knows and no one says. You follow the drugs, you get a drug case. You start following the money, you don't know where you're going. That's why they don't want wiretaps or wired CIs or anything else they can't control. Because once that tape starts rolling who the hell knows what's going to be said?"¹⁸ As Daniels's comment suggests, finance capital in

¹⁶ Similar wire-tracking shots recur later in the series. For example, in the fifth season, a winding shot follows an illegally established pink police wire to a corresponding modem. In this context, the twisting wire invokes the tangled lie that McNulty and Freamon create in order to trick the police department into giving them the personnel and surveillance gear they need to put down a major case.

¹⁷ *The Wire* maps many formal and informal economies through its five season run. In the first season, viewers are gradually introduced to a system for selling drugs that includes a manager, a moneymen, a drug runner, and security, not to mention actors in charge of supply and money processing. Throughout the show, money determines interactions between characters.

¹⁸ Lester Freamon also explains, "You follow drugs, you get drug addicts and drug dealers. But you start to follow the money, and you don't know where the fuck it's going to take you." Interestingly, it is not only

The Wire operates less like a standard cinematic “causal agent” that propels forward a linear chain of events than the substance that links together the decentralized nodes of a social network.¹⁹ Of course, the police leadership repeatedly ignores such a distributed perspective, perceiving limited and predictable causal chains as less politically threatening than networks that they “can’t control.” The network aesthetics of the show challenge the fear of institutional interconnectivity expressed by those in power and reveal networks to be potentially productive investigative tools that can help us better understand contemporary capitalism.

The social networks depicted in *The Wire* are not reducible to the technological or capital webs that underlie Baltimore, but they are heavily informed by them. Early on, Detective Freamon discovers the outline of a web of corruption that extends everywhere. Working from one of Barksdale’s confirmed Baltimore properties, Freamon pursues a paper trail that leads him to a network of Limited Liability Companies and other fronts that are owned legally by the drug boss. Unfortunately, the investigation is curbed shortly after it begins. As soon as U.S. Senator Davis discovers that the investigation is coming too close to his own

the Major Crimes unit that realizes the importance of following the money. In the fourth season, Omar robs a major drug shipment from New York after following the movements of key drug players and their money.

¹⁹ For more on “causal agents” and film theory, see Bordwell and Thompson’s *Film Art: An Introduction*.

interests, he calls a meeting with Lieutenant Daniels and police Major Burrell. After trying to reason politely with an obstinate Daniels, who insists on continuing the investigation, Davis snaps: "Fool, what do you think? That we know anything about who gives money? That we give a damn about who they are or what they want? We have no way of running down them or their stories. We don't care. We just cash the damn checks, count the votes, and move on." Instead of invalidating a network analytical approach, the senator's repugnantly pragmatic justification of his shady dealings demonstrates precisely why a distributed perspective, rather than a linear narrative, is necessary to make sense of social and political life in all its complexity.

The Wire demonstrates that police departments, politicians, schools, and media outlets tend to take pragmatically myopic views with regard to larger systems of drug trafficking, urban violence, hopeless education, and racial discrimination. The show also suggests that, despite the significance of networks in contemporary life, our society focuses on and fears the wrong networks. America's misplaced obsession with the threat of terrorist networks, for example, is a repeated theme in the show. In the first episode, during an introduction to the terror of the Baltimore drug trade, a newscast about international terrorism entitled "America at War" comes on in the background, momentarily distracting the viewer from the violence of the American urban landscape. Later in the season, after Daniels and his squad

attempt to take the Barksdale case to the federal level, the FBI explains that it is no longer interested in drug cases because of a new federal counter-terrorism imperative. Agent Fitzhugh explains, “The trouble is we have these post-9/11 protocols. We can't pick up any new narcotics work unless it goes to priority organized-crime targets.... To run with you on this, we need a recognized OC target. Or, even better, a connect to counterterrorism or corruption.” An irritated McNulty bursts out: “So drugs and murder don't cut it anymore? Well, how about terrorism? These guys have dropped 14, 15 bodies. The witnesses, cooperators.” But the response — “That kind of hyperbole doesn't serve anyone, detective” — illustrates the FBI's lack of interest. In the end, however, *The Wire* affirms McNulty's perspective, showing that there is nothing hyperbolic about his rhetoric.²⁰

In America, the quotidian anxiety that accompanies networks of crime, drugs, unemployment, and violence that reign down on our nation's most impoverished populations is often ignored in light of more sensational threats of enemies such as terrorist networks. As *The Wire* suggests through some of the coded names attached to the heroin sold in Baltimore — “Killer Bee,” “Death Row,” “W.M.D.,”

²⁰ A similar point is made in the fourth season when the police officers of Baltimore's Western district are forced to sit through federally mandated counterterrorism training. Exasperated by the pointless session, the officers disrupt the speaker and begin to joke around. “If them terrorists do fuck up the Western,” Officer Santangelo asks, “could anybody even tell?” Sergeant Carver adds: “Some Al-Qaeda's were up on Baltimore street planning on blowing up the Chicken joint. But Apex's crew jacked them up, took their camels and robes, buried their ass in Leakin' Park. At least that's what I heard.” Another officer joins in: “Hey, y'all want some real terrorists? You go up on Pencey and Gold.”

“Greenhouse Gas,” “Apocalypse,” and “Pandemic” — the state of America’s urban spaces and the state’s functional abandonment of people living in these zones should be the real cause of social anxiety. Unfortunately, in both the case of the War on Terror and the War on Drugs — and even the War on Poverty²¹ — the network is converted into a reified figure that plays a strategic role by enabling endless conflict.²² Media critic Siva Vaidhyanathan contends that the language of distributed networks makes it “impossible to tell when a war against a network is over because it can’t be seen.” (171). In *The Wire*, Officer Ellis Carver makes a similar comment about the drug war to Detective Greggs: “Girl, you can’t even call this shit a war,” he says. “Wars end.”

In *The Wire*, the threat that proves more fundamental than that of terrorism or drugs is the terror of the American capitalist system itself. Certainly a critique of

²¹ Like drugs, poverty can more effectively be understood from a network perspective rather than through a war lens. For a structural critique of the War on Poverty, see Frank Stricker’s *Why America Lost the War on Poverty-- and How to Win It*. Stricker argues, “Staying out of poverty is only in part a matter of individual effort; it is also and more so about institutions and structures that allow individual aspirations to bloom or die” (3). Structural unemployment, spurred by racial discrimination, inadequate education, and postindustrial development, has been a major problem since the 1950s (25).

²² *The Wire* generates an extensive critique of “war” rhetoric in both the “War on Drugs” and politics in general. In the third season, Major Colvin explains to Sergeant Carver that a combative approach on the corners is a self-fulfilling prophecy: “I mean, you call something a war and pretty soon everybody gonna be running around acting like warriors. They gonna be running around on a damn crusade storming corners, slapping on cuffs, racking up body counts. And when you at war, you need a fucking enemy. And pretty soon, damn near everybody on every corner is your fucking enemy. And soon the neighborhood that you’re supposed to be policing that’s just occupied territory.” He adds, “Soldiering and policing, they ain’t the same thing.” Later in that season, Slim Charles exposes the insane logic of war when Avon Barksdale’s crew is about to clash with Marlo Stanfield’s emerging gang: “Don’t matter who did what to who at this point. Fact is, we went to war, and now there ain’t no going back. I mean, shit, it’s what war is, you know? Once you in it, you in it. If it’s a lie then we fight on that lie. But we gotta fight.”

capitalism is nothing new, even in film and television. Numerous popular cinematic works, such as Tony Gilroy's *Michael Clayton* (2007) or Tom Tykwer's *The International* (2009), offer limited critiques of capitalism. But most of these works rely on multi-layered narratives that rest on underlying conspiracy theories. *The Wire* takes a different approach. As Kinkle and Toscano note, "Not conspiracy but tragedy, not contingency but compulsion, dominate *The Wire*." Through seasons that take on the violent drug trade, the labor problems of post-industrialism, the crumbling inner city school system, and a media empire that disdains accountability in favor of profits, *The Wire* indicts the structure of a system that has served those in power — a system that has neglected the masses of what Simon calls "the other America" and keeping them in perpetual poverty. "But what really ails America," he contends, "is this":

Raw, unencumbered capitalism is an economic force and a potent one. But it is not social policy and amid a political culture of greed and selfishness, it is being made to substitute for social policy. The rich get richer, the poor get fucked, and the middle class of this country — the union-wage consumer class that constituted the economic strength of postwar America — is fast disappearing as the need for union-wage work disappears. Raw capitalism — absent the moderating aspect of a political system that cares for the great mass of voters (or non-voters) who uphold that system — is not good for most of us. It is great for a few of us. We are building only the America that we are paying for, and ultimately, it is going to be an ugly and brutal place, much like the city-state depicted in *The Wire* (Simon in AOL Interview).

In place of liberal political promises, Simon offers a diagnosis — a blueprint that charts both organizational components and pervasive affects of contemporary American capitalism.

The Wire traffics in social networks, but its aesthetic dimension and its depiction of singular characters separates it from the scientific methodology of social network analysis. As Latour attempts to do with his “actor-network-theory” methodology, the show describes the world instead of categorizing it or claiming to solve its problems. The series opts for careful description of the controversies, contradictions, and messy complexities of social life over prescription that skews representation through an anticipation of how the world is ordered. Literature and art, at their best, foster both-and thinking that grapples self-reflexively with the complications and tensions of daily life. The connections that make up social networks, after all, are rarely smooth and continuous. Every ecology — every social web — is a precarious structure.

The type of fragility I have in mind comes across in a plotline at the end of the first season of *The Wire* that concerns Bubbles: a heroin addict, a friend of narcotics detective Greggs, and a knowledgeable confidential informant for the Major Crimes Unit. After struggling with his drug addiction, Bubbles attempts to clean himself up but finds that he is invariably caught between two worlds. The

structural support he needs to make the transition off the streets (shelter, a job, and the support of friends and family) is difficult to come by. Eventually, he turns to his friend Greggs who listens sympathetically and promises him a couple hundred dollars so that he can rent an apartment. They make an appointment to meet the next day when she plans to give him the money. Greggs, however, is shot during an undercover operation that takes place that very night and rushed to the emergency room. When she misses the meeting with Bubbles the next day, he feels abandoned by his only meaningful link to the social world and regresses into his heroin habit. In this sequence and many others, *The Wire* demonstrates the precariousness of social links among actors in the American network of late capitalism.

Through network aesthetics, the show grapples with the interpersonal and systemic nature of human suffering in the early twenty-first century. Networks are not monolithic totalities. They are made up of actors that defy the seeming unity of the whole.²³ *The Wire* suggests that the sum of social relations can only be

²³ Latour makes this point well when he discusses the approach of actor-network-theory to an overarching abstraction such as capitalism. In *Reassembling the Social*, he writes, "Capitalism is certainly the dominant mode of production but no one imagines that there is some *homunculus* CEO in command, despite the fact that many events look like they obey some implacable strategy" (167). Although a larger system seems to exist, it is not recognizable in totality in particular situations. Latour calls this issue the "actor/system quandary" (169). Ultimately, he contends that while it is easy to argue that capitalism is the infrastructure of global transactions, it is more effective to study the "centers of calculation" such as Wall Street that endow capitalism with its dominance (178). Calling for a specific methodological focus on process, he adds, "Don't focus on capitalism, but don't stay stuck on the screen of the trading room either: follow the connections, 'follow the actors themselves'" (179). The benefit of this approach is that, unlike the totalizing or macro-theoretical view, it makes alternatives to capitalism thinkable: "capitalism has no

understood by paying attention to the apparently anomalous or divergent. Seamless theories produce stability and resolve controversies, but they often miss the dynamic processes of worlds teeming with irresolvable contradictions. *The Wire* attends to such specificity in its focus on social structure and, as I suggest in the next section, an engagement with literary and cinematic form.

5.2 “The Dickensian Aspect”: From the Victorian Multiplot Novel to the Network Form

The world is a smaller place now.

— The Greek, *The Wire*

In the fourth season of *The Wire*, a major mayoral debate takes place shortly before the Baltimore city election. The viewer experiences the debate in snippets, hearing fragments of argumentation about Baltimore’s crime epidemic and catching glimpses of the three candidates — incumbent Clarence Royce, challenger Tony Gray, and the eventual winner Tommy Carcetti — on various television screens. The

plausible enemy since it is ‘everywhere,’ but a given *trading room* in Wall Street has many competitors in Shanghai, Frankfurt, and London — a computer breakdown, a sneaky movement by a competitor, an unexpected figure, a neglected variable in a pricing formula, a risky accounting procedure — that may shift the balance from an obscene profit to a dramatic loss” (178). *The Wire* manages to attend to both the concrete, human dimension of capitalism without forsaking its larger structure. The show oscillates between the macro and the micro view.

visual focus of this sequence, however, is not on the debate itself but on the massive ensemble of characters that is watching (or not watching) the episode of political theater. During a series of short scenes that takes the debate as a formal through line, members of the Royce and Carcetti camps scrutinize the television coverage. Detectives in the Homicide unit watch with distant interest, listening only for an engagement with issues that pertain to their own criminal investigations. Ex-con Dennis “Cutty” Wise sees the debate on his screen for a brief moment before switching the channel to a football game. Namond Brice, a young aspiring drug dealer, turns off the debate without a thought and begins to play *Halo 2*, a first-person shooter videogame.

While the content of the debate proves pivotal to the election outcome, in this series of shots, argument and plotting is a secondary component. The sequence registers the intersecting lines and divergent vectors that make up *The Wire*. The camera notes not an event as such, but the different reactions to it. Characters across the Baltimore network display different degrees of emotional intensity, ironic distance, and distracted disregard for the political contest. Rather than condensing time — a common function of filmic montage — this sequence draws connections among individuals who all live in Baltimore but inhabit very different worlds. This segment, like the show in its entirety, is not produced to draw the cinematic gaze of

Hollywood spectator yet it proves equally incomprehensible to the distracted domestic glance of the standard television viewer.²⁴ Unlike classic films or contemporary sitcoms, *The Wire* parses neither to a violent stare or an unfocused look. In the show's own idiom, a thorough viewing requires "soft eyes." This phrase is the suggestion that Roland "Prez" Pryzbylewski receives from a veteran public school teacher when he begins working at Baltimore's chaotic Tilghman Middle school. "You need soft eyes," his more seasoned colleague tells him. It is the same line that Homicide Detective Bunk Moreland later utters to Kima Greggs when she arrives on her first murder scene: "You got soft eyes you can see the whole thing. You got hard eyes, you staring at the same tree, missing the forest."²⁵ Seeing a forest — or a network for that matter — requires an active, creative, and careful way of looking. To glimpse interconnections among people and institutions only soft eyes will do.

The concept of "soft eyes" implies a state of mind that is open to details, which are not available to a surface glance and are not easily assimilated into existing categories of knowledge. The network aesthetic that makes up *The Wire* requires soft eyes to see. The show's style extends beyond the most immediately

²⁴ I draw the language of cinematic "gaze" versus televisual "glance" from Chris Chesher's "Neither gaze nor glance, but glaze: relating to console game screens."

²⁵ The first season's tagline offers a version of this same advice: "Listen Carefully."

apparent televisual styles and genres, drawing on a longer literary and cinematic history. These artistic precursors serve both to historicize the series and sharpen the nature of its network-derived formal innovations. Indeed, the system of interconnections that characterizes the five seasons of *The Wire* has various precursors in literary fiction.²⁶ From a formal standpoint, many critics have compared the show to a Victorian novel — particularly the multiplot novel.²⁷ Multiplot novels — most of which were composed in the period between the late 1840s and the late 1870s by writers such as Charles Dickens — were a significant form of serialized British literature (Garret 1).²⁸ In distinction to the unified narrative

²⁶ Simon has reflected, “If *The Wire* resembles a novel for television... I will claim that it at least has the pretensions of a literary novel” (Simon in AOL Interview).

²⁷ A number of television critics have offered additional comparisons between the series and the “great Victorian novel,” both of which include extensive social commentary, an episodic structure, and a long duration (Talbot). Hornby, in the introduction to his interview with Simon, also draws a parallel between *The Wire* and the novels of Charles Dickens: “At one stage I was simultaneously hooked on *The Wire* and the BBC’s brilliant adaptation of *Bleak House*, and it struck me that Dickens serves as a useful point of comparison; David Simon and his team of writers (including George Pelecanos, Richard Price, Dennis Lehane) swoop from high to low, from the mayor’s office to the street corner—and the street-corner dealers are shown more empathy and compassion than anyone has mustered before.” Simon himself emphasizes this link between *The Wire* and the Victorian multiplot novel when he notes, “I think what you sense in *The Wire* is that it is violating a good many of the conventions and tropes of episodic television. It isn’t really structured as episodic television and it instead pursues the form of the modern, multi-POV novel. Why? Primarily because the creators and contributors are not by training or inclination television writers. In fact, it is a little bit remarkable that we ended up with a television drama on HBO or anywhere else. I am a newspaper reporter by training who wrote a couple long, multi-POV nonfiction narratives, *Homicide* and *The Corner*” (Simon in Hornby).

²⁸ The most prominent Victorian multiplot novels include texts as William Thackeray’s *Vanity Fair* (1847-8), Charles Dickens’s *Bleak House* (1852-3), George Eliot’s *Middlemarch* (1871-2), and Anthony Trollope’s *The Way We Live Now* (1875). Certainly multiple plots can be traced back to the Elizabethan use of subplots, which stands in distinction to French neoclassicism (Garret 3). Such early modern subplots, however, are read as threads belonging to the unity of a central plot (3). In distinction to this narrative form, Garret

form advocated by later novelists such as Henry James, the multiplot depends on extensive branching that enables character inclusiveness, narrative multiplicity, and the dispersal of a reader's attention across a wide literary web.²⁹

In her reading of Dickens's *Bleak House*, Caroline Levine suggests the mutually generative nature of narrative and network form in the Victorian multiplot novel. She argues that its interconnected structure paves the way for such twenty-first-century films as *Traffic*, *Syriana*, and *Babel* (517).³⁰ The interpenetration of plots in a novel such as *Bleak House* also proves central to televisual narrative form in *The Wire*, which acknowledges its literary debt in one of its fifth season episode titles, "The Dickensian Aspect." Like a Victorian multiplot novel, the show rests on an architectural foundation of links, parallels, and patterns. Through both narrative and

argues that Victorian multiplot novels disperse their plots thereby challenging any "clear or consistent principle of subordination" (4).

²⁹ Garrett writes, "the most important possibility and primary function of multiple narrative is clearly inclusiveness: the large and densely populated worlds of most Victorian multiplot novels, the expansive effects produced by differences of situation and mode between their narrative lines, and the generalizing effects produced by similarities are all ways of achieving inclusiveness through multiplication" (2). While producing a proliferation of characters and narratives, the multiplot novel also divides the fictional world "to disrupt the continuity of each line" of narrative and "to disperse the reader's attention" (2).

³⁰ Levine shows the bidirectional connection between the form of the large Victorian novel language of network science. She writes, "Using the expansive form of the long, loose, baggy triple decker, Dickens had tried to represent all of England as interconnected." (517). She adds, "In *Bleak House*, each character acts as a node in a distributed network; and to make things more complicated, most characters in the text act as nodes in two or more different distributed networks" (518). Finally, she notes, "On the face of it, narratives wouldn't seem to lend themselves to the representation of networks at all. While narratives are organized around diachronic unfoldings, networks are composed of constant crisscrossings among nodes in a system, best represented, at least traditionally, by synchronic forms like charts and maps. Yet *Bleak House* structures the unfolding of its plot around multiple conflicting and competing webs of interconnection" (519).

visual formal techniques the series invokes connectivity.³¹ On a few occasions, the camera swings around, making a seamless transition between two characters who, unbeknownst to each other, occupy the same physical space but are involved in different portions of the overarching plot. In other scenes, intercuts among Baltimore institutions emphasize parallel protocols and differences in organizational structure.³²

In addition to camera movement and cutting, narrative construction invokes network links. One specific subplot forges a chain of relationships among characters by tracking the movement of a single object — an expensive ring — as it changes

³¹ Kinkle and Toscano comment on the “formal austerity” and “‘style-less’ style” of *The Wire* that includes a “lack of non-diegetic sound” and “unobtrusive camera.” While these features are minimal, the show actually plays extensively with cinematic form, especially in later seasons. Numerous shots show the perspective of surveillance cameras in elevators and on the sides of buildings. Other shots take on an aerial helicopter view or photographic freeze-frame s. Moreover, as it continues, the show makes more use of montages that juxtapose different characters and institutions. Even so, it is worth noting the formal differences between *The Wire* and the standard police drama. Margaret Talbot notes, “‘The Wire’ did not rely on the jumpy handheld-camera shots and the blurry “swish pans” that a lot of network cop shows had adopted. The camera remained locked, for minutes at a time, on people talking. And the story unfolded at a slower pace, too, which meant that many of the scenes elaborated on the characters and the power structures they moved within, rather than lay the pipe of plot.”

³² Related closely to such formal parallels, there are important (if initially unexpected) similarities between the Victorian serial novel and the contemporary American television show in terms of distribution and circulation. Given continuities between British imperialism in the nineteenth century and American geopolitical power in the twentieth century, however, these parallels are not as surprising as they may initially appear. Mattelart explains that, in the nineteenth century, “serialized novels, the first exportable form of a culture intended for the masses, became the vehicle of a true ‘international sentiment’” (27). The relationship between serial form and narrative seduction — a bond that can be traced back to the storytelling strategies of Scheherazade in *One Thousand and One Nights* — was first utilized in the service of profit by popular British magazines in the nineteenth century when new technologies ushered in cheaper printing methods. Linking art and commerce, the aesthetic style of Victorian novels adapted to growing internationalism in a similar way that network narratives in Hollywood films such as *Syriana* have adapted formally to the contemporary topography of global interconnection.

hands. The ring circulates through Baltimore's system and accrues meaning not through some ultimate revelation but through its role as a nexus of interconnection. Over the course of various power plays and thefts, the ring passes from drug trafficker and grocery store owner Old Face Andre to Westside drug boss Marlo Stanfield to stick-up artist Omar Little to corrupt patrolman Eddie Walker and, finally, to the fourteen year-old Michael Lee. This valuable object, which inspires different demonstrations and exchanges of power, provides the viewer with a stable marker that can be traced across an otherwise changing network topology. Building on the tradition of novels such as Anthony Trollope's *The Way We Live Now*, which employ a multiplot technique to represent industrialism's international dispersal, *The Wire* uses narrative and visual economy to depict postindustrial networks.

The links between the Victorian multiplot novel and the American televisual style of *The Wire* are not the result of Simon's idiosyncrasies as a writer. The connection between this nineteenth-century novelistic form and twentieth-century cinematic productions has been discussed extensively by film historians and theorists. Notably, Sergei Eisenstein's influential essay "Dickens, Griffith, and the Film Today" (1944) emphasizes the influence of the British realist novel on American cinema. Eisenstein insists, more specifically, on the profound effect that Dickens's proto-cinematic eye and parallel narrative style had on the films of pioneering

American director D.W. Griffith.³³ Key techniques of film economy, including the close-up, parallel action, and the conjunction between atmosphere and character revelation are prefigured in Dickens's "optical" and "aural" prose (211). According to Eisenstein, the most important innovation that Griffith drew from Dickens was "a montage progression of parallel scenes, intercut into each other" (217).³⁴

The Wire unquestionably draws from the formal innovations developed by the Dickensian multiplot novel and the early cinema it inspired, but the show ultimately invokes these traditions in order to depart from them. While *The Wire* shares the scope and some of the techniques of the Victorian multiplot novel, it does not share its social, political, and representational imperatives. In the fifth season, *The Wire* directly invokes the Dickensian multiplot novel in order to explore the ways its network aesthetic departs from and reconfigures that earlier form in an American context. The difference between these approaches comes up in a newsroom discussion at the *Baltimore Sun* that concerns the representational approach that the newspaper will take in its coverage of the failures of the city's

³³ Eisenstein draws connections between form and aesthetics, on the one hand, and politics on the other. As he puts it, "We know the inseparable link between the cinema and the industrial development of America. We know how production, art and literature reflect the capitalist breadth and construction of the United States of America. And we also know that American capitalism finds its sharpest and most expressive reflection in the American cinema" (196).

³⁴ Griffith's *Intolerance* (1916), for example, represents an early attempt at a multiplot film that uses techniques such as montage to move across numerous histories and geographies. Another early example of a film that plays with multiple plots is Edwin S. Porter's *The Kleptomaniac* (1905) (Eisenstein 242). Notably, Porter made *The Great Train Robbery* (1903) on which Griffith based his *The Lonedale Operator* (1911).

failing school system. This moment of self-reflective *ars poetica* takes the form of a debate that includes numerous staffers who take opposed positions, but the clash is primarily one between old-school journalist Executive Editor James C. Whiting III and free-thinking City Editor Augustus “Gus” Haynes³⁵:

James C. Whiting III: The word I'm thinking about is Dickensian. We want to depict the Dickensian lives of city children and then show clearly and concisely where the school system has failed them.

Staffer: Not to defend the school system but a lot of things have failed those kids. They're marginalized long before they walk into class.

Augustus “Gus” Haynes: You want to look at who these kids really are, you gotta look at the parenting or lack of it in the city. Drug culture. The economics of these neighborhoods.... Yeah sure, we can beat up on city schools. Lord knows they deserve to be beat on every once in a while. But then we're just as irrelevant to these kids as these schools are. I mean, it's like you're on the corner of a roof and you're showing some people how a couple shingles came loose and meanwhile a hurricane wrecked the rest of the damn house.

Staffer Scott Templeton: You don't need a lot of context to examine what goes on in one classroom.

Gus: Oh really, I think you need a lot of context to seriously examine anything.

Whiting: No, I think Scott is on the right track. We need to limit the scope, not get bogged down in details.

Gus: To do what? To address the problem or to win a prize? I mean what are we doing here?

Whiting: Look, Gus. I know the problems. My wife volunteers in a city school, but what I want to look at is the tangible, where the problem and solution can be measured clearly.

³⁵ It is important to note that the struggle between James C. Whiting and Gus Haynes is also marked visually along racial lines. Whiting, as his name suggests, is a white man with a prestigious route through the journalistic establishment. Haynes, on the other hand, is played by mixed race actor Clark Johnson. Despite having dropped out of journalism school, Haynes's talent and work ethic have earned him the position of City Desk editor.

Staffer: There's more impediments to learning than a lack of materials or a dysfunctional bureaucracy.

Whiting: But who's going to read that?

The terms of this journalistic debate about how best to depict the problems facing Baltimore's inner-city children, many of whom end up on the corners selling drugs en route to early deaths, juxtaposes two dramatically different representational styles. The "Dickensian" style advocated by Whiting is characterized by a heartfelt approach, a straightforward depiction of the squalid lives of city youth, and a concise critique of the school system. Whiting wants to examine "tangible" problems and solutions that can be "measured clearly." As he later adds, "Now what do you want, an educational project or a litany of excuses? I don't want some amorphous series detailing society's ills. If you leave everything in, soon you've got nothing."³⁶

The more complex and risky approach valued by Gus, on the other hand, serves as a microcosm of the aesthetic favored by Simon and the other writers of *The Wire*. Describing a network approach that accounts for parenting styles, the drug

³⁶ These are similar terms to the ones that Kraniauskas uses to critique *The Wire*. He writes, "Inverting the procedure of classic police-procedural film *The Naked City* (Jules Dassin, 1947), instead of zooming in on one of '8 million stories', the series zooms out, arguably too far, attempting to show them all. The paradox of *The Wire*'s accumulative compositional strategy – and the epistemological and aesthetic problem it poses – is that the more of the social it reconstructs, shows and incorporates into its narrative so as to explain the present, the less socially explanatory its vision becomes" (26). In defense of the show, I would argue that contemporary capitalism is itself a totalizing economic form thereby necessitating a representational style that seeks, however imperfectly, to depict totality. Moreover, the show's network aesthetic foregrounds the limits of this vision of totality even as it relies on it. To be fair, Kraniauskas later acknowledges this possibility when he notes, "At one level, Seasons 4 and 5 may thus be experienced as mere repetition. At another, however, the moving story of the corner boys, suggests that the addition of another institution has a strategic intention: systematicity" (33).

culture, and the economic conditions of the city in addition to the schools themselves, Gus contends that “a lot of context” is necessary to “seriously examine anything.” In the end, Whiting dismisses Gus’s journalistic theory by claiming that an overly complicated story will fail to draw in readers and sell papers. Indeed, this same rationale about complexity alienating viewers led to the cancellation of *The Wire*, which was receiving extremely low Nielsen ratings by the end of its fifth season.³⁷ Even as certain questions raised by this debate remain open, it is significant that, at this crucial moment in its narrative, the show invokes the Victorian novel and contrasts two literary styles in order to foreground the complications inherent to its own sociopolitical aesthetic.

One key difference between representational styles that emerges in the *Baltimore Sun* debate has to do with varied treatments of melodrama. As film critic Rick Altman reminds us, both Victorian fiction and the early cinema that it influenced carry a “debt to popular melodrama” (Altman 14). As opposed to classical narrative with its single-focus plotting and solitary protagonist, melodrama

³⁷ In an online Q&A entitled “Ask *The Wire*: David Simon,” the show’s creator gives several reasons for the show’s low ratings. In addition to a predominantly black cast and a lack of happy endings, he explains that the show “requires thought and commitment to watch and absorb complex plotlines and subtleties. Television in America is by and large a vegetative medium.”

depends on dual-focus stories.³⁸ Melodrama, which influences filmic works via the historical routes of nineteenth-century novels and early-twentieth century popular theatrical productions, sets good and evil in opposition to one another. Indeed, even Eisenstein who praises Dickens's more complex parallelism concedes that, at a political level, Dickens subscribes to a "slightly sentimental humanism" (233). While Dickens is committed to representing different cross-sections and classes of Victorian society, the author maintains a dualistic Manichean split between the rich and poor as a way of producing a clear-cut social commentary. *The Wire*, unlike Dickensian novels, avoids moralistic melodrama. The show does not merely juxtapose social realms that are usually kept separate but also draws connections among them.³⁹

The challenge posed by *The Wire* to the melodramatic "Dickensian Aspect" is as much a response to the conventional trappings of the medium of television as to the Victorian multiplot novel or early Hollywood film. As Simon explains, *The Wire*

³⁸ I draw the vocabulary of "single" versus "double" focus from Altman who writes, "Continuity is assured by consistent following of a single character along with whom we discover the surrounding world. In contrast to the melodrama's characteristic dual-focus concentration on two separate centers of interest, I have called this type of narration 'single-focus'" (20). In the end, however, Altman complicates the commonly held belief that classical narrative has a single focus. As he puts it, "Even the notion of linearity, so important to descriptions of classical narrative, must be seen not simply as linearity, but as vectorized tabularity, as constantly retaining the sense of the relationship between the line and the other points on the matrix within which that line momentarily appears" (29).

³⁹ Arguably, the show's difference from British multiplot novels in this regard is attributable, in part, to the comparative lack of American investment in class hierarchy. Even so, the series achieves a similar complexity in the realm of race: a much more prominent category in the United States.

challenges the model of TV narrative as a means of entertainment, distraction, and the production of disposable feelings⁴⁰:

Because so much of television is about providing catharsis and redemption and the triumph of character, a drama in which postmodern institutions trump individuality and morality and justice seems different in some ways, I think. It also explains why we get good reviews but less of an audience than other storytelling. In this age of Enron, WorldCom, Iraq, and Katrina, many people want their television entertainments to distract them from the foibles of the society we actually inhabit (Simon in Hornby).

Simon shuns satisfying clashes between good and evil in which the former triumphs over the latter.⁴¹ He prefers to examine the vast middle ground that features complex people instead of archetypal extremes. Avoiding character types that conform to established genre roles, *The Wire* treats its key figures as volatile nodes in a highly dynamic social network.

The program's emotional robustness, which resists melodramatic extremes, is tied closely to its experimentation with televisual temporality and narrative parallelism. Despite its episodic form, *The Wire* does not serve as another sponge intended to absorb periods of leisure time. Unlike some popular fiction serials or TV

⁴⁰ I take the notion of disposable feelings from Todd Gitlin who argues that in an age of mass media we have "come to experience, and crave, particular kinds of feelings — disposable ones" (41).

⁴¹ Critic Laura Miller also differentiates *The Wire* from a Dickens novel on these grounds: "But since a novel may or may not share these qualities, since a novel can be just about any kind of story these days, it might help to know that 'The Wire' is also not like, say, a Dickens novel. It indulges in neither sentimentality nor moral goading. Each season has a social theme — the failure of the war on drugs, the collapse of labor unions, the hash of local politics and, last time around, the crippled public school system — but 'The Wire' lacks the Victorian naiveté to believe that any of us will be sufficiently riled up by these tragedies to do anything about them, or that we'd succeed if we tried."

sitcoms, Simon's series is intended to be watched numerous times and lived with over an extended period of time.⁴² The program's poor cable ratings gave rise to a more profitable afterlife through DVDs: a media format more amenable to a viewing experience that registers the show's complex character webs, patient thematic development, and multi-nodal plot. In fact, Kinkle and Toscano have observed that "Simon himself has referred to the series as a single sixty-six hour movie. Single episodes have zero autonomy and the show is much better suited to being watched intensely over several days rather than an hour a week for several months." In this way, the show taps into serial desire without being merely episodic. Individual episodes are never self-contained and never suggestive of unambiguous moral lessons that frame discrete installments.

The uncommon temporal experience of *The Wire* enables the show to use the narrative parallelism and character interconnection of the Victorian multiplot to alternative ends. In particular, the series challenges the linear development and

⁴² Levine suggests that the extended length of the most successful Victorian multiplot novels is what allows them to eschew narrative economy in favor of intricate connections among major and minor characters. I believe something similar takes place in *The Wire*. Contrasting a Victorian multiplot with a feature film, Levine writes, "But the sheer length of *Bleak House* allows the Victorian novel to do two things that the feature film cannot. First, the filmic narratives tend to rely on what theorists call chain networks, where one event prompts another in a sequence of effects—more like dominoes than like the Internet" (520). Moreover, "the films typically rely on a single principle of interconnection, like the drug trade or the oil industry, to undergird their plots, whereas Dickens layers on multiple principles of interconnection, linking the same individuals and families over and over again through different channels" (521). This type of layering, in *The Wire*, allows for characters from previous seasons to return for brief moments in subsequent seasons, creating a kind of cumulative narrative ecology that produces a world and not merely a story.

tendency toward closure characteristic of that earlier novelistic form.⁴³ Writers such as Dickens may represent networks through multiplot techniques, but those multiple vectors tend to converge, in the end, toward a unified resolution.⁴⁴ For all of its similarities to the multiplot novel, *The Wire* avoids happy endings in all five of its seasons.⁴⁵ Despite earning numerous convictions along the way, the Major Crimes Unit undertakes cases that, much like the drug trade itself, do not end.⁴⁶ Detective Sydnor recognizes this fact at the end of the first season, as he looks at the bulletin board of interconnections among major drug players. "This is the best work I ever did," he observes. "I never did a case like this. But it's not enough.... I just feel like this just ain't finished." *The Wire* repeatedly spurns closure, suggesting that the structure of life is not made up of neat beginnings and clear-cut endings so much as

⁴³ Tragedy, which I discuss in the next section, privileges structure to chronology and closure. Rebecca Bushnell elaborates on this feature of Greek tragedy: a form that *The Wire* channels. She writes, "The final scene, the *exodus* (which parallels the *parodos*), can take many forms, but more often it feels less like a crescendo and more like a sigh" (34).

⁴⁴ As Garrett writes, "Dickens' plots repeatedly find surrogate families and happy endings for his isolated protagonists, and the intricate networks of connections between plot lines that he reveals can be seen as enlarged projections of the same desire to reestablish relations that define identity" (222).

⁴⁵ The show frequently criticizes the fantasy of total victories and happy endings. For example, after a long monologue in which the self-destructive Detective Jimmy McNulty discusses the importance of his work and the achievements of the Major Crimes Unit, Lester Freamon responds, "Tell me something, Jimmy. How exactly do you think it all ends?... A parade? A golden watch? A shining Jimmy-McNulty-Day moment when you bring in a case so sweet everybody gets together and says, 'Oh, shit, he was right all along. We should've listened to the man.' The job will not save you, Jimmy. It won't make you whole. It won't fill your ass up." It is middles, not endings, that are of greatest concern in the show. As Freamon adds to McNulty, "A life, you know what that is? It's the shit that happens while you're waiting for moments that never come."

⁴⁶ Miller observes, "Novels end, but the vast, fascinating, unspooling mess that is the Baltimore of 'The Wire' can have no conclusion."

the loose threads that characterize less lofty middles.⁴⁷ When the show does eventually end it is with a mockery of closure: a going-away party for Detectives McNulty and Freamon at Kavanaugh's bar that takes the form of a mock-wake complete with jovial eulogies. This challenge to definitive finales repeats, on a visual level, with the final shot of each season, which depicts not a clear path but an open-ended crossroads. In place of the closure of the Victorian multiplot and the popular melodrama, *The Wire* employs the circular mode of tragedy to engage questions of social structure and to gesture toward a radical politics that emerges from the contemporary American topology of interconnection.

5.3 "A Dark Corner of the American Experiment": Tragedy and the Politics of Structure

Deserve got nuthin' to do with it.

— Felicia "Snoop" Pearson, *The Wire*

When he loses his job in the Baltimore police department, after accidentally shooting a black undercover officer, Roland "Prez" Pryzbylewski attempts to overcome his overwhelming shame by becoming a teacher at Tilghman Middle

⁴⁷ Latour reminds us that networks are never made up of perfect connections: "Contrary to substance, surface, domain, and spheres that fill every centimeter of what they bind and delineate, nets, networks, and 'worknets' leave everything they don't connect simply *unconnected*. Is not a net made up, first and foremost, of empty spaces?" (*Reassembling the Social* 242).

school. In the first week of his eighth grade math class, as Prez presents a word problem to his new students, a young girl who is being teased by a peer loses control. The girl jumps out of her seat and slashes the classmate who provoked her across the face with a razorblade. Paralyzed with shock, the instructor watches his student's blood gush onto the ground as the class erupts chaotically around him. It is only when senior English teacher Grace Sampson rushes into the room and establishes control that a modicum of order is restored. On the following weekend, sitting around at home, a broken Prez attempts unsuccessfully to find the words he will use to help the other students work through this violent act. Staring absently at a football game on television, as he processes the doomed state of the Baltimore school system, he tells his wife, "No one wins. One side just loses more slowly."

The layers of tragedy, both personal and institutional, that inhere in this sequence of events are characteristic of the form of *The Wire* as a whole. Baltimore is a crumbling city plagued by a self-serving power structure and a drug trade that feeds parasitically on the impoverished underclass. In a word, the situation that Simon's show depicts and scrutinizes in painstaking detail is tragic.⁴⁸ The program's mode of tragedy relies neither on the distance inherent in the affect of pity nor on

⁴⁸ Tragedy in Simon's show is not only a representational strategy but also a social mode. As Baltimore-based director John Waters explains in a special feature documentary on *The Wire* entitled "Everything is Connected," "It is not a tragic picture of Baltimore. It is a part of Baltimore that is tragic" (Season 5 DVD bonus materials).

the sublime awe that attends disaster pornography.⁴⁹ Tragedy here is not a tired litany against social ills, a perfunctory rehearsal of social hopelessness, or a perverse exercise in political nihilism. At the same time, the tragedy of *The Wire* does not drift toward the other extreme. It is not blunted by salvation or the promise of reciprocal justice. In Sergeant Jay Landsman's poetic phrase, the series can be said to observe and occupy "a dark corner of the American experiment."

It is a strange thing for a quintessentially American television show to operate in a tragic mode. Despite numerous canonical American works that channel tragedy — including Herman Melville's *Moby Dick*, Richard Wright's *Native Son*, Arthur Miller's *Death of a Salesman*, and Francis Ford Coppola's *Godfather* trilogy — this older mode is not considered a popular American genre or mode. Miller puts this point well in her analysis of *The Wire*:

In a way, it doesn't make sense to talk of 'The Wire' as the best American television show because it's not very American. The characters in American popular culture are rarely shown to be subject to forces completely beyond their control. American culture is fundamentally Romantic, individualistic and Christian; when it's not exhorting you to 'follow your dream' it's reassuring us that in the eleventh hour, we will be saved. American culture is a perpetual pep talk, trafficking in tales of personal redemption and the

⁴⁹ While I am interested in examining the form and structure of *The Wire*, I think of tragedy as a mode rather than a genre. Rita Felski marks this distinction in her analysis of the tragic mode, "A more elastic term than 'genre,' 'mode' lends itself especially well to the complicated history and vicissitudes of tragic art. Modes are adjectival, remarks Alistair Fowler, denoting a selective group of features rather than a text's overmixed qualities of genres. This adjectival usage can emancipate us from prescriptive taxonomies in literary criticism that persist in equating the tragic with a now virtually defunct form of poetic drama" (14).

ultimate triumph of good over evil. We don't do doom. 'The Wire' is not Romantic but classical; what matters most in its universe is fulfilling your duty and facing the inexorable with dignity.

In a great deal of American art — especially in popular media such as television — feel-good heroic tales, retellings of “American Dream” yarns, or (at worst) redemption narratives trump an older mode of tragedy. Contemporary film theory and media analysis have had, as Rita Felski observes, “virtually nothing to say” on the transformation of the tragic form in contemporary modes of storytelling (6).

The Wire is saturated with tragic conditions and events: unanticipated betrayals, suicidal spirals, meaningless lives, and unceremonious deaths. Detective McNulty devolves into a drunken, self-destructive mess, alienating even his friends and family. Stevedore Frank Sobotka's son Ziggy murders the black market retailer Glekas and his clerk because he's “tired of being the punch line to every joke.” The young drug addict Sherrod accidentally swallows capsules that his friend Bubbles filled with sodium cyanide — drugs intended for a dope fiend who has been stealing from him for weeks — thereby sending Bubbles into crippling sorrow and a desperate suicide attempt. In all, the tragic events that fill *The Wire* would take pages simply to enumerate. In place of romantic American optimism, the show offers only stark realism. In the second season, Omar Little — a gay stick-up artist who fearlessly rips off major drug dealers before being shot in the back of the head by a

young boy — expresses the show's central critique simply by wearing a t-shirt that reads, with a mix of cutting irony and genuine insight, "I am the American Dream."

In *The Wire*, personal tragedies stand alongside social ones. Throughout the series, the underclass — the dockworkers, the black inner-city inhabitants, the homeless — are abandoned by the career-focused politicians most capable of helping them. Only a perfunctory investigation follows the discovery that drug player Marlo Stanfield has secretly killed twenty-two people and hidden their bodies in vacant buildings around Baltimore. Detective Moreland observes, "You can go a long way in this country killing black folk. Young males especially." Lester Freamon adds, "You think that if 300 white people were killed in this city every year, they wouldn't send the eighty-second Airborne? Negro, please." In this instance, as in many others, tragedy is social in the way it affects not just individual lives but connections among people. This facet of tragedy is expressed in a conversation in which Omar attempts to convince Detective Bunk Moreland that, as long as he leaves innocent citizens alone, there is nothing wrong with murdering drug dealers who are, after all, a scourge on the community. Omar says, "y'all gonna have to call this one of them cost-of-doing-business things y'all police be talking about all the time. You feel me? No taxpayers. Shoot, the way y'all look on things, ain't no victim to even speak on." Bunk, however, insists on the larger cost of such murders to families and

communities, including Omar's own partner Tosha who is killed during a drug robbery. "Bullshit, boy," he says. "No victim? I just came from Tosha's people, remember? All this death, you don't think that ripples out?" Bunk further invokes the tragedy of lost connections among people over the years, "As rough as that neighborhood could be, we had us a community. Nobody, no victim, who didn't matter. And now all we got is bodies and predatory motherfuckers like you. And, out where that girl fell, I saw kids acting like Omar. Calling you by name. Glorifying your ass." Every action, the show suggests, has consequences. Despite self-serving distinctions between white and black citizens, taxpayers and criminal parasites, everyone is connected to everyone else.⁵⁰

Simon's show is filled with tragic events and broken communities that disprove the fantasy of American exceptionalism, but perhaps more significantly, *The Wire* also takes the shape of a tragedy in the formal sense. Of the two most discussed Western types of tragedy, the classical Greek and the early modern English — Simon draws primarily from the former. As he explains:

⁵⁰ Disconnection is one of the key political problems identified by *The Wire*. In addition to Baltimore institutions, the show demonstrates how the American federal government has all but abandoned the city. In one scene, Jimmy McNulty rants to political strategist Theresa D'Agostino, "None of them has a clue what's really going on. I mean, where I'm working every day the only way any of these guys is even gonna find West Baltimore is if, I dunno, Air Force One crash-lands into Monroe Street on its way back to Andrews. It just never connects."

Much of our modern theater seems rooted in the Shakespearean discovery of the modern mind. We're stealing instead from an earlier, less-traveled construct — the Greeks — lifting our thematic stance wholesale from Aeschylus, Sophocles, Euripides to create doomed and fated protagonists who confront a rigged game and their own mortality. The modern mind — particularly those of us in the West — finds such fatalism ancient and discomfiting, I think (Simon in Hornby).

The sense of a “rigged game” and subjectively-determined morality unsettles an American culture that has been dominated by an inspirational art and optimistic mythology. In place of a Judeo-Christian sense of justice, Simon channels a “fatalism” that does not conform consistently to any orderly morality.⁵¹ In the third season, Major Colvin even adopts the language of Greek tragedy overtly when, during a COMSTAT meeting of the police leadership, he reports an increase in crime in his district and defends the contingency of this development. “Sometimes the gods are uncooperative,” Colvin offers in the way of explanation. Unsympathetic to the defense, Commissioner Burrell tells his majors that if “the gods are fucking you, you find a way to fuck them back. It’s Baltimore, gentlemen. The gods will not save you.” Unlike Aeschylus’s character Orestes who is saved as a result of Athena’s

⁵¹ Not all types of tragedy privilege chaos or fate to justice. For instance, neoclassical tragedy is predicated on the achievement of justice. Rebecca Bushnell explains, “At the end of the seventeenth century, English critical taste dictated a tragic economy of reward for virtue and punishment of vice, and eventually, this older kind of tragedy lost its audience, to be replaced by melodrama” (62). It is this mode of melodrama, which is not historically separate from tragedy, which informs many of the Victorian multiplot novels and early Hollywood films I mention in the previous section of this chapter.

intervention and appeasement of the Eumenides (the Kindly Ones), Colvin and the citizens of Baltimore receive no reprieve.

Greek tragedy, unlike the Shakespearean variety, is frequently focused not on an individual protagonist but rather the family and the *polis*. In *The Wire*, familial crimes like those of Sophocles's Theban trilogy do not drive the tragedy. Rather systemic social, political, and economic crimes generate Baltimore's urban tragedy. The series draws from the figures of Greek gods as well as the later naturalistic invocations of fate but, in translating these traditions into a contemporary American context, it takes equally restrictive institutional structures and sociopolitical networks as its subject. Simon himself puts this point beautifully:

But instead of the old gods, *The Wire* is a Greek tragedy in which the postmodern institutions are the Olympian forces. It's the police department, or the drug economy, or the political structures, or the school administration, or the macroeconomic forces that are throwing the lightning bolts and hitting people in the ass for no decent reason. In much of television, and in a good deal of our stage drama, individuals are often portrayed as rising above institutions to achieve catharsis. In this drama, the institutions always prove larger, and those characters with hubris enough to challenge the postmodern construct of American empire are invariably mocked, marginalized, or crushed. Greek tragedy for the new millennium, so to speak. Because so much of television is about providing catharsis and redemption and the triumph of character, a drama in which postmodern institutions trump individuality and morality and justice seems different in some ways, I think (Simon in Hornby).

If the city of Baltimore is the *mise-en-scène* of the series, it is the capitalist system — the network of "American empire" — that is its ultimate focus. Anyone who

challenges that system is, in fact, “crushed” or assimilated into its internecine logic.⁵² Such defeat is not punishment. It is simply the consequence of systemic protocols that are beyond individual comprehension. Failing to achieve cosmic triumphs, the show’s characters achieve, at most, limited moral victories and fleeting interpersonal connections.

The tragic form of *The Wire* offers an alternative to the terror that drives so much of American popular entertainment and cultural life. As Terry Eagleton observes, “The United States is a profoundly anti-tragic culture which is now having to confront tragedy on an epic scale” (Eagleton in Felski 342). Even as the United States is “anti-tragic” in its culture, the superpower has not been immune to a preponderance of tragic events and circumstances. Just in the first decade of the twenty-first century, Americans have faced the destructive 9/11 attacks, the failed Occupation of Iraq, the devastating effects of Hurricane Katrina, and a debilitating economic downturn. Tragic occurrences, however, are not the same as a tragic sense of the world. In all of these catastrophic cases, the United States confronted heartrending situations not with a tragic sensibility but, by and large, with sheer

⁵² While the basis of tragedy in *The Wire* is sociopolitical structure rather than individual lack, the show does contain elements of what Bushnell calls “the tragedy of desire” (55). The contest of wills between Detective McNulty and drug boss Stringer Bell in the first three seasons is certainly a contest of desire. McNulty’s overreaching hubris in putting down big cases and proving his own investigatory superiority also influences the plot’s tragedy. McNulty, who at times resembles a tragic hero, proves as frightening as some of his more traditional counterparts.

terror. Mass media outlets, politicians motivated by self-interest, and writers of sensation fiction are just some of the actors responsible for the terror that paralyzed the American imagination. This politics of fear is problematic for many reasons, not the least of which is that it numbs people to the real tragedies that surround them. Terror masks a complex network topology, converting it into a linear melodrama in which evil threatens good, and good ultimately conquers evil. Insidiously, terror leads us to fear for our own safety instead of experiencing and empathizing with social tragedy.⁵³

In response to an American politics of fear and its corresponding culture, *The Wire* experiments with a politics of tragedy. Given that tragedy is frequently dismissed as being nihilistic, it may seem odd to speak of its politics. Indeed, Felski observes that this literary mode is perceived “as the enemy of politics in promoting a sense of hopelessness, fatalism, and resignation” (4). Nevertheless, tragedy has a

⁵³ As historian Joanna Bourke contends, the American politics of fear has “blunted sensibilities” and led most people to feel fear only for potential threats to their own well-being — not the actual suffering of others under the system of late capitalism (x). In other words, fear of external threats is connected to a failure of empathy toward others whose suffering we do not adequately fear. Simon addresses this very failing to care and fear for the well-being for others when he notes, “But human empathy has its limits and some of those limits are based on race and culture. Personally, this has always been a disappointment to me, but it is simply human nature. Witness the horror in the Middle East currently, where Arabs cannot fully feel the pain of Israelis being rocketed randomly in their cities and towns and Israelis cannot feel the tragedy of the Lebanese being bombed in their homes and streets. Once politics and race and religion do their worst work, everyone only fully feels their own humanity and the other is somehow a little less human. At that point, of course, any horror is possible” (Simon AOL interview). In a more philosophical register, Edmund Burke observes that, when disconnected from the individual self, fear carries with it a degree of pleasure. As he explains, “terror is a passion which always produces delight when it does not press too close, and pity is a passion accompanied with pleasure” (42).

politics — not “a politics” as it is often used by literary and cultural critics to describe an essentially liberal humanist artistic sensibility, but in the more technical sense of protocols of decision-making and structures of power. As Felski again puts it, “even as tragedy is seen to transcend politics, its very existence depends on a specific organization of political life” (9). The political structure of contemporary America leads *The Wire* to a network form that follows the money and links together the nodes of the global capitalist system. The show’s alternative social vision derides neoliberal reformism and romantic hope in some future-bound panacea. It opts instead for a politics that is devastatingly honest and radically anti-humanist. *The Wire* demonstrates that, unpopular as the literary mode has grown in mainstream American storytelling, tragedy has a unique ability to foreground sociopolitical structure, challenge a belief in rational agency, and demonstrate the limits of democratic governance.⁵⁴ In *The Wire*, political structure and literary form, social networks and tragic affect, are closely connected. More than an index of tragic events, Simon’s program employs tragedy to call the viewer’s attention to the politics of form.

⁵⁴ Jameson speaks to the political value of a narrative of defeat. He argues, “successful spatial representation today need not be some uplifting socialist-realist drama of revolutionary triumph but may be equally inscribed in a narrative of defeat, which sometimes, even more effectively, causes the whole architectonic of postmodern global space to rise up in ghostly profile behind itself, as some ultimate dialectical barrier or invisible limit” (*Postmodernism* 415). Kinkle and Toscano offer an extended reading of this contention in the context of *The Wire*.

If the spatial form of *The Wire* is modeled after the network, its temporal form is cyclical. David Simon and Ed Burns's non-fiction novel *The Corner: A Year in the Life of an Inner-City Neighborhood*, which preceded *The Wire* and introduced many of its themes, already experiments with tragic cyclicity. The book is divided into four sections that correspond to the four seasons, coming full circle from early winter to late fall. *The Wire* itself also depends on a cyclical structure. At the end of the first season, the recently promoted dealer Poot reiterates the same lesson about tightening up his crew's drug distribution protocol to his young hoppers that D'Angelo Barksdale delivers to him in the first episode of the series: "You take a nigger's money, then you serve him?... The way you doing it, someone snapping pictures got the whole deal." Structurally, this recurrence implies a cheerless lack of change in the overarching drug structure. For the viewer, however, the repetition is also instructive. Re-experiencing the organizational components of the drug trade contributes to a fuller understanding of its overarching form.⁵⁵

Structural repetition in *The Wire* is not simply a facet of the perpetual drug trade. As we see in a string of short scenes that conclude the series, the entire underlying world order of the show is cyclical. Even as certain characters are fired

⁵⁵ As a form, tragedy is inherently about meaning making. Bushnell explains, "The tragic plot can be taken to articulate a meaning for human suffering that does not emerge from the random mess of events. To put it another way, we seek meaning in tragedy, looking there for knowledge gained through suffering or simply the strange reassurance that what happened was necessary, that it had to be so" (53).

from their jobs or killed, others step in to adopt their roles. This development reveals a Baltimore ecology that is more resilient than any of its individual players. Once the rebellious Jimmy McNulty leaves his job, Detective Sydnor takes his place, violating the chain of command by visiting Judge Phelan in his chambers and applying pressure to reenergize a buried investigation. Detective Greggs channels her mentor Lester Freamon, immersing herself in a difficult murder investigation even when it is not her turn to take the case. Michael Lee robs Vinson of a bag full of drug money, stepping into the role held for years by the recently deceased Omar. Fatface Rick and Slim Charles meet with the Greeks, ready to fill in the gap left by Marlo's departure from the drug game, much as he once replaced Avon Barksdale and Stringer Bell. Dukie ends up in the streets and shoots dope in a back alley, destined to fill the role of Bubbles who is now well on his road to recovery. While character origin stories are missing from *The Wire*, which (with a single exception) avoids visual flashbacks, the end of the series reveals that certain key characters have been slowly preparing to enter social roles which were initially introduced in medias res. These characters are the most three-dimensional on television. Nevertheless, they are not agential subjects so much as systemic variables. They are nodes in a network that reworks itself in a cyclical flow.

The Wire invites the viewer to reflect on tragic form and its politics. Tragedy is cyclical, not dialectical as Hegel would have it in his famous reading of the classical clash between Antigone and Creon. This literary mode is revolving, not revolutionary.⁵⁶ Dialectical thinking, in both its idealist Hegelian and materialist Marxist versions, still exists in the service of historical progress narratives. Dialectical developments belong to the order of teleology, synthesis, and a unity of opposites. Michael Maffesoli incisively observes that there is a “difference of tonality between the drama or the dialectic, which postulates a solution or a possible synthesis, and the tragic, which is aporetic in structure” (323).⁵⁷ Tragedy, unlike dialectics, does not enable unity. Clashing paradox, irresolvable contradiction, spiraling doubt: these are the “aporetic” provinces of tragic art. As Maffesoli contends, unlike the Hegelian dialectic, tragedy does not depict the slave overcoming the master. It foregrounds the forms, institutions, and systems that structure life’s weaving tangle, its constantly changing network. In place of “reassuring synthesis” (332) there is only a “conflictual harmony” (329). Instead of a

⁵⁶ In his reading of *Antigone*, Hegel represents the struggle between familial and state law as an example of a dialectical movement. Through his analysis, he seeks to complicate the absolute opposition between the universal and the particular. As Peter Szondi explains, for Hegel, tragedy and dialectics are not opposed terms. The suffering of the tragic hero in Greek tragedy, in fact, is key to a synthesis between opposed moral claims.

⁵⁷ Michael Maffesoli’s essay “The Return of the Tragic in Postmodern Societies” (Trans. Rita Felski, Allan McGill, and Marilyn Gaddis Rose) appears in Felski’s *Rethinking Tragedy*.

Euclidean geometry of linear vectors shooting forward across Cartesian planes, tragedy favors the non-orientable space-time of the Möbius Strip.

The Wire uses cyclical temporalities and network topologies to suggest a politics predicated on interconnected immanence, not the transcendence common to both dialectical histories and the American redemption narrative.⁵⁸ As Maffesoli again contends:

The Judeo-Christian and Hegelian-Marxist vulgates have based their waiting for the future coming on the negation of life 'here' in relation to a life 'over there' that would be better and free of all vicissitudes. The dramatic tension toward another life is their driving force. The tragic sensibility, that of the cycle, is completely different, wisely accepting what is and applying a form of intensity to living it (333).

Despite its refusal of personal salvation, tragedy is not a categorically pessimistic mode. Tragic art is founded on a belief in the regeneration of life through cyclical renewal. Rejuvenating as this cyclicity might be, however, it does not allow the individual deliverance. It does not admit tortured subjects through gates that lead to some utopian future. The extreme individualism of late capitalist American culture is, in fact, what accounts for the reductive nihilistic label tragedy so frequently

⁵⁸ *The Wire* incessantly mocks the American redemption narrative. Perhaps the best example takes place in the transition from the fourth to the fifth season when newly elected Mayor Carcetti who has envisioned radical changes under his administration is incapable of delivering on most of his promises. After the police department funds are cut significantly, Detective McNulty notes, "Motherfuckers come to me and say, 'It's a new day, Jimmy,' talking shit about how it was gonna change. Shit never fucking changes."

receives.⁵⁹ This mode, however, is not about singular heroes, but about immanent systems that surpass lone human consciousnesses: collective structures and extensive networks.

In its formal tragic exploration of social structure, *The Wire* supplants the individual agency that still drives traditional American realism.⁶⁰ In Caroline Levine's sense, the show can be said to invoke a "narratively networked sublime" (523). Without necessarily offering satisfying answers, this form of sublimity raises questions about how we might ever know collective systems and totalities (522). In *The Wire* at least, this "whole," of course, is not unified and seamless. In place of the unity sought by the social, political, and technological developments of modernity, the postmodern era has been characterized by multiplicity and fragmentation. A vision of totality persists not in monolithic completeness but in networked distribution. Tragedy, which frequently invokes social fractures and political chaos, is an ideal mode for conveying and exploring this contemporary structure.

⁵⁹ In place of the "individual" or even the "subject," tragedies such as *The Wire* can be said to rely on "actors" in Latour's sense of the word. As he explains in *Reassembling the Social*, "An 'actor' in the hyphenated expression actor-network is not the source of an action but the moving target of a vast array of entities swarming toward it" (46). An actor is a networked node and not a purely willful agent.

⁶⁰ *The Wire* has a complex relationship to realism that would require another essay to unpack properly. To put it succinctly, the show both operates through a mode of realism (e.g., in its attempt to reproduce Baltimore corner speech), but also disrupts realism through its invocation of incomprehensible complexity that is beyond individual thought.

Particularly when it pertains to the contemporary network structure, a politics of tragedy is not an oxymoronic formulation. Neither is it a recipe for anarchy.

From a political perspective, it is noteworthy that networks are ultimately neither utopian nor dystopian structures in *The Wire*. Depending on context, they prove enabling or limiting. In the fourth season, for instance, a newly elected Mayor Carcetti actually improves Baltimore, albeit temporarily, by recognizing and exploiting the network that holds together its institutions. Carcetti visits various city agencies whose performance is suffering. He addresses the heads of these agencies, reporting to Public Works that there is an abandoned car that requires towing, to Parks and Recreation that there is a playground that needs cleaning up, and to Wastewater Management that there is a leaking hydrant that must be cut off. In each case, he leaves immediately after making his report without identifying the location of these failures. Given the vast number of deserted cars, dirty playgrounds, and overflowing hydrants in Baltimore, this vagueness forces a widespread response that results in immediate improvement. In the very next episode, however, several Baltimore politicians use a similar concept of network distribution to deny responsibility for a fifty-four million dollar school budget deficit. Citing the complexity of the issue as well as its systemic nature, every member of Carcetti's budget committee manages to avoid blame for the mounting crisis and its tragic

implications. As these examples indicate, a network approach can both facilitate and block political change. Regardless of their application, however, networks transform the ways we participate in and think about politics as such.

5.4 “All of Us Vested, All of Us Complicit”

We got our thing, but it’s just part of the big thing.

— Zenobia Dawson, *The Wire*

Networked interconnection surpasses the individual ability to think it. The networks of capitalism, for instance, are too vast and too rapidly changing to allow total comprehension. Nevertheless, embracing this impossible analytic task — tragic insofar as it cannot be fully accomplished by a single mind — promises a fuller understanding of the structures that impede social justice. In their sublimity, networks are not objects of knowledge. They are structures accessible only through an imagination that exceeds individualistic thought and enters the realm of aesthetic and philosophical speculation. By thinking toward networks, we can undertake the difficult work of envisioning radical modes of political being — complex collectives instead of scattered collections of actors. It is worth noting that this type of political perspective is by no means unique to contemporary American life but finds a correlate in the Greek tragedy on which Simon draws. Felski explains, “Greek

culture gives us a view of the person as embedded in multiple circles of being from the familial to the cosmic; to be human, in this light, is to be present for others, to exist in collective and communal webs of meaning" (20-1).⁶¹

While *The Wire* has more in common with communal Greek thought than with modern individualism, it does not merely mimic this earlier tradition. The shift from language of family and mythical cosmic systems to that of socio-political institutions and material networks is not a one-to-one translation. As I argued in my previous chapter on *Gravity's Rainbow*, contemporary networks evince new forms of control and ways of representing power itself. In the early twenty-first century, relations of power are increasingly the products of dynamic transformations and reconfigurations that take place within webs of associated actors. When adapted into a strategy, the network form can distribute people, alienate them from one another, and make decentralized power relations more difficult to identify.

Indeed, David Simon has made the assertion, both curious and provocative, that *The Wire* is "the funniest show about the decline of the American empire on television" (AOL interview).⁶² The American form of empire is not a mere replica of nineteenth-century British power. Nevertheless, this continuity comes across in one

⁶¹ In this passage, Felski offers a summary of Timothy Reiss's work on tragedy.

⁶² While set in Baltimore, *The Wire* repeatedly gestures toward the global scale of American empire. For example, in the third season, a mutually disadvantageous turf war between Avon Barksdale and Marlo Stanfield doubles as a metaphor for the failed war in Iraq.

of the most significant metaphors in the television show: the recurrence of trains and train tracks. Detectives McNulty and Moreland have frequent drunken conversations on or near train tracks. The sound of trains constantly fills the background like the collective voice of the Greek tragic Chorus. While train imagery and audio in the show is irreducibly polysemous, it signals the far from seamless transition from an industrial to a post-industrial economy. Given the centrality of train systems to the international scope of British power, this element of the show is also a reminder of the link between British imperialism and American empire. As Mattelart observes, the British “construction of railways throughout the world, relying on large foreign loans, stimulated the internationalization of financial markets and resulted in the steering of corporations by financial capital” (10). Founded in British finance, American ruthlessness becomes evident in the poverty of the Third World, but it is equally visible in West Baltimore and many of this country’s own urban spaces. In its depiction of so many ruined lives, *The Wire* demonstrates that in the era of multinational capitalism, power spreads not through hierarchal force but through distributed networks.

The network aesthetic of *The Wire*, both overwhelming and sublime, invites the viewer to think about connections between self and world. We are encouraged to contemplate our role in the larger webs that encompass us — to recognize our

complicity. Eighth grader Namond Brice, who is relegated to an experimental classroom for problematic “corner kids,” makes this point well when he speaks to the hypocrisy that exists between apparent social rules and the actions of those in power. “Yeah, like y’all say,” he announces. “Don’t lie, don’t bunk, don’t cheat, don’t steal, or whatever. But what about y’all, huh? What, the government? What’s it — Enron? Steroids, yeah. Liquor business? Booze is the real killer out there. And cigarettes — oh, shit.” The contradictions inherent in the American capitalist system demonstrate a hypocrisy that further flourishes when interconnectedness among social spheres is obscured. Bubbles comments on this very link after making the brief detour through the white Baltimore suburbs with Detective McNulty and returning to the segregated projects: “It’s a thin line,” he says, “‘tween heaven and here.”

The Wire does not merely shift the blame from one amorphous enemy to another. Failing schools, racism, and poverty are structural problems, not concrete enemies against which we can launch wars. Nevertheless, the show links these systems to the individuals who participate in and perpetuate them. Detective Freamon, who tracks drug money through political and legal networks, explains that he has always dreamed about “a case like this here where you show who gets paid behind all the tragedy and the fraud, where you show how the money routes itself, how we’re all, all of us vested, all of us complicit.” While a network aesthetic is less

exciting than the thrill of suspense and action characteristic of standard police dramas, it offers a glimpse into a series of configurations that remain invisible in films or television series that follow crime-solving heroes. Instead of untangling a mystery and leaving the viewer satisfied, the program charts a map of social entanglements in which we are all “vested” and “complicit.”

The focus on networks throughout the series replaces a language of liberal “reform” with a language of constitutive “form.” A romantic desire for transformative change cedes to a tragic engagement with structure. Regarding whether he believes that *The Wire* will change opinions Simon muses, “Change minds? Nobody changes anyone's mind anymore. People strain facts through their own ideology and ignore that which is happening before their eyes” (AOL interview). Change by means of political reform belongs, in Simon’s view, to a belief in the sovereign subject whose actions can change the world. Such hope, exploited by so many politicians seeking to establish successful careers, often keeps us from asking more difficult questions that may require more drastic responses.⁶³ In the third season of the show, Major Colvin comes to this very conclusion. At a Baltimore

⁶³ In an AOL interview, Simon asks a number of these difficult questions: “Why don't we see the problems for what they are? What are we looking at? What are we paying attention to? What are we ignoring? What do we read and watch and consider and what is it that never comes to our attention? And why? Having built our city-state, explored its problems and examined government's willingness or lack of willingness to address those problems, the last question we want to ask is why all of us allow things to remain as they do?”

community outreach meeting, a police officer presents a chart of statistics that suggests that crime has decreased. A woman who lives in a crime-ridden portion of the Western district interrupts and contradicts the officer's numbers: "My kids, they can't play outside no more. Some nights when we hear these pops, we got to sleep under our bed. I come home from work, I can't even get up my front steps 'cause they occupied by the drug dealers. Is *that* in the picture you got up there?" In response, Major Colvin takes the stage and engages the woman with honesty and empathy rather than the politically safe diplomacy usually offered by the department. "The truth is," he admits, "I can't promise you it's going to get any better. We can't lock up the thousands out there on the corners. There'd be no place to put them even if we could. We can show you charts and statistics like they mean something. But you going back to your homes tonight, we going to be in our patrol cars, and them boys still gonna to be out on the corners, deep in the game. This here's the world we got, people. And it's about time all of us had the good sense to at least admit that much." A man from the crowd timidly asks, "So what's the answer?" Major Colvin responds, "Well, I'm not sure. But whatever it is, it can't be a lie." Refusing to contribute to a comforting falsehood, *The Wire* experiments with controversial responses to major social problems. Radical interventions such as the establishment of "Hamsterdam" (a peripheral zone in which the drug trade is

tolerated thereby moving trafficking away from urban residential areas) in the third season and a special program for disruptive “corner kids” in the fourth take the place of trivial band-aid reforms.⁶⁴

The tragedy of *The Wire* serves as a formal alternative to earlier closure-oriented novels as well as the redemption narratives that permeate contemporary American television. It is noteworthy in the context of a scholarly analysis of this show that it also calls into question the efficacy of academic critique itself. This point becomes clear in a conversation, at the end of the fourth season, between David Parenti, a University of Maryland sociology professor, and Howard Colvin whom he has hired to help him study the defects of the school system and aggressive behavior in adolescents. When Colvin grows despondent about the failure of Baltimore politicians to implement substantive educational changes based on their research findings, Parenti excitedly explains the gains they can make by securing an additional grant:

Parenti: When we get the grant, we study the problem, we propose solutions. If they listen, they listen. If they don't, it still makes for great research. What we publish on this is going to get a lot of attention.

⁶⁴ Simon does not claim that an actual “Hamsterdam” zone would be a cure-all for the drug trade, but he does contend that this experiment, unlike the hopeless policing strategies employed in the status quo, would at least address underlying issues. He notes, “A true-life Hamsterdam would not be pretty and we captured that, I think. But without a truce in the war on drugs, this country is only going to continue to squander precious resources that might be better utilized to rebuild human lives and to continue to demonize its underclass and turn its inner cities into war zones. What drugs have not destroyed, the war against them has. Until we admit this, we are destined to fail and fail miserably” (AOL interview).

Colvin: From who?

Parenti: From other researchers. Academics.

Colvin: Academics? What, they gonna study your study? When do the shit change?

As one of the “academics” invoked in this passage, I take this reminder of the limits of scholarly interventions seriously. Theorizing about the nature of social problems is important, but it has its formal and institutional limits. Indeed, even the most passionate invective against capitalist injustice, racism, or any other social ill should not produce a feeling of satisfied accomplishment or moral superiority.

Instead of the self-congratulatory romantic language of “opposition,” “resistance,” and “subversion” that continues to pervade the humanities, we might learn something from the clear-eyed modesty of a tragic sensibility. Instead of taking the stance of ethically pure social reformers, academics might profit from a self-reflexive admission of institutional restrictions that frequently leave us writing for an insular audience of “other researchers.” Even so, no one, academics included, belongs to any single group or community. We are all nodes in vast social networks. Our choices and relations to other human beings frequently have wide-ranging effects. It is this inevitable connectivity that Simon has in mind when he summarizes his show in the following formulation: “*The Wire* is everyone’s story. It’s about the America we’ve built and the America we’ve paid for, and therefore the America that all of us deserve, sadly” (AOL interview). With these words, Simon reminds us that

America is not a static formation to which we Americans belong, but a dynamic network that we all shape, in which we all participate, and for which we are all responsible. As eighth-grader Zenobia Dawson puts this point, even more succinctly, "We got our thing, but it's just part of the big thing."

Coda: Interactive Network Aesthetics in the Era of New Media

Taken together, these four vectors — the increasing interconnectedness of games, games as a site of interaction between the global and the local, play as a cultural practice, and games as an apparatus of a technological subjectivity — point to a problematic whose surface has hardly been scratched so far: the politics of play.

— Chris Chesher, Alice Crawford and Julian Kücklich, “Gaming Networks”

Several times a week, I explore the massively multiplayer online world

Second Life — walking, running, flying, and teleporting my avatar through varied digital landscapes, which range from the picturesque to the surreal, from the chaotic to the sublime. Whenever I occupy this public virtual space, I find myself saturated with data, processing and responding to numerous instant textual messages; quick-paced group conversations; gorgeously rendered objects; imaginatively crafted avatars; advertisements for virtual items; soundtracks of pop music, techno rhythms, and strange audio effects; human voices chatting and laughing in the distance; multiplayer games with monetary prizes; and videos streaming on dance club walls. The years that have passed since I initially joined this world have not diminished my sense of awe of an environment that is so powerfully immersive both because of the mixed media and the dynamic communities it produces. As Walter Holland, Henry Jenkins, and Kurt Squire have observed, “massively multiplayer games are not only games but also social systems—living, breathing communities with their own ecologies, life cycles, and cultures” (in Wolf and Perron 33).

Second Life, with its frenzied emphasis on consumerism and normative standards of beauty, is far from a categorically radical virtual world, but it nonetheless inspires visions of uncommon ecologies: networks made up of connections that span categories of age, language, gender, race, class, religion, and sexuality. For all of its flaws, this space encourages experimentation with transnational, transgender, and even transspecies groupings that are uncommon or nonexistent in the non-digital world.¹ During the years I have worked on this dissertation, *Second Life* has continually reminded me that even as politicians and mass media sources continue to use network metaphors to inspire terror or to bolster an exploitative form of capitalist utopianism, decentralized structures also inspire us to think about interconnectivity in more expansive and inclusive terms. To put this point another way, the network form reveals a significant range of affordances. It is worth remembering that networks, both as material and metaphorical constructs, have the potential to spur the imagination of new knowledge and the creation of alternative social groupings.

¹ For some significant thought being done about these types of communities, see the work of new media artist Micha Cárdenas, especially his article "From Tactical Politics to Virtual Politics."

Second Life makes for a rich case study and has attracted a great deal of scholarly attention, across the disciplines, since its launch in 2003.² Even so, this space is no anomaly in its use of online networks to experiment with new aesthetic forms. This development belongs to a longer history of game production and digital world making that has relied heavily on network interactivity since the 1970s. Enabled by early network protocols, media environments took a multiplayer direction in 1978 when textual MUDs (or Multi-User Domains) brought with them the first networked textual discussion spaces and interactive games. Taking another step toward the present-day gaming, Lucasfilm released the first graphically-oriented virtual world, *Habitat*, in 1986 (Wolf and Perron). By the mid-1990s, limited multiplayer environments opened up into massively multiplayer online (MMO) games such as *Ultima Online* (1997). With the release of *World of Warcraft* in 2004 — a game that has since accrued upwards of 11.5 million players — interactive multiplayer network gaming and virtual world design became a major mode of contemporary entertainment and storytelling.³

² See, for instance, Tom Boellstorff's *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human* and Mark Stephen Meadows's *I, Avatar: The Culture and Consequences of Having a Second Life*.

³ One of the most observant analysts of MMO games in recent years has been Edward Castronova who has performed social, political and economic readings of these spaces in *Synthetic Worlds: The Business and Culture of Online Games* and *Exodus to the Virtual World: How Online Fun Is Changing Reality*.

As a result of these creative developments, the fledgling field of game theory over the last few years has proven unthinkable without the analysis of network linkage. Chris Chesher, Alice Crawford, and Julian Kücklich contend that, more so than any other cultural form, digital gaming exemplifies the interconnectedness of culture:

Massively multi-player online games like *EverQuest* and *World of Warcraft* bind players together in social networks that span the globe, and extend well beyond the realm of the virtual. In part, this is because gaming has become an increasingly online phenomenon, and technological developments bear witness to this fact: for the new generation of game consoles, including Xbox 360, Wii, and PlayStation 3, network adapters are no longer an optional accessory, but part of their core functionality; portable devices such as the PSP and the Nintendo DS facilitate the set-up of ad-hoc networks through wi-fi, while distribution of PC games is shifting from 'brick and mortar' retail to content delivery over networks such as Steam.

Interactive gaming, as this passage demonstrates, has evolved beyond its specialized roots as a tangential curiosity for computer programmers. Numerous games have garnered global user communities interested in playing with one another. From console games played by small networks of users to MMO worlds visited by users from across the planet, increasingly more digital titles depend on network technologies and, in turn, give rise to sizeable social networks.

My study of network aesthetics has focused primarily on creative production such as prose fictions, feature films, and television shows, which are predominantly

representational rather than interactive in nature.⁴ Given the literary and cinematic focus of this project, I have only started to address the relationship between the aesthetics of new media (such as video games) and networks. Somewhat surprisingly, the theorization between these elements does not yet have a substantial history, especially in the humanities. Even as the history of networking technologies like the Internet stretches back to the 1960s, the acknowledgement of network theory as a central facet of new media studies is a fairly recent phenomenon. Questions about interactive media were first addressed systematically and institutionally in the academy with the formation of the inter-discipline of visual studies in the United States in the mid-1990s.⁵ Lisa Nakamura explains that this movement spurred the first generation of critical texts devoted to the theorization of digital media, including David Bolter and Richard Grusin's *Remediation* (1999), Andrew Darley's *Visual Digital Culture* (2000), and Lev Manovich's *Language of New Media* (2001) (9).⁶ These analyses made major contributions to the emerging field of visual and new

⁴ I do not mean to imply that interactivity is only a quality of new media productions. Brenda Laurel defines "interactivity" as "the ability of humans to participate in actions in a representational context" (35). The process of reading a novel or watching a film is always bidirectional and participatory, especially as interpretation shapes the nature of the original object. The texts I have studied throughout the dissertation influence the way that readers and viewers understand networks and frame the world.

⁵ Nakamura explains, "[David] Rodowick, along with Nicholas Mirzoeff, Coco Fusco, Lisa Cartright, Marita Sturken, and Stuart Hall, helped to initiate the field of visual culture studies in the academy through their advocacy, which was multidisciplinary in nature" (8). Interestingly, this shift happened at the same moment that the first popular graphical Web browser (Netscape Navigator) was released.

⁶ Earlier books by scholars in English in theater studies, also sought to grapple with emerging media and made valuable contributions to the field. Nevertheless these texts, such as Janet Murray's *Hamlet on the Holodeck* (1997) and Espen Aarseth's *Cybertext* (1997), often did so in the terms of earlier textual forms.

media studies, but even they were steeped in the older idiom of film theory rather than the more recent media language. As Nakamura contends, the greatest limitation of these turn-of-the-century texts was precisely that they did not take into account the “determinative element of networking — the facilitation of image production and sharing via linked computers” (9). Early critics writing about the Internet, she argues, framed “digital visibility as if it were a medium like radio, television, or film, rather than as a mode of communication, like the telephone or the telegraph” (Nakamura 10).

Critics such as Nakamura have attempted to bring the social concerns of the humanities and the technical priorities of fields such as communications or information studies even closer together. Building on such work, the study of networks in games and new media offers an excellent opportunity to bridge concerns about narrative, aesthetics, and form held by disciplines such as English, art history, and philosophy with issues about network technologies and communication structures raised by more scientifically-oriented fields. As Nakamura’s work demonstrates, in the study of new media productions, the most thorough understanding emerges from an analysis of the feedback loop between data structures and representations, formal and media features. The aesthetics of games and emerging media — the sense of beauty and affective charge they evoke

— remain central to the way we understand those works, but encoded interactivity and social networks also complicate the study of aesthetics.⁷ Digital media challenge us to think of aesthetics as a relational property that takes place between players and game rules, between users and hardware, and among users within social networks. The beauty experienced during a stroll through a virtual forest in *Second Life*, for instance, emerges from artfully rendered redwood trees and digital sunsets, but it is also affected by the speed with which the user moves her avatar across a meadow, her sense of comfort with the interface, or a romantic exchange with another user in the same space.

Given their growing popularity and fusions among multiple new media forms, digital games represent an excellent entry point into questions about how to analyze the interactive network aesthetics that characterize electronic fictions, computer simulations, Web 2.0 applications, and a wide array of new media artistic productions. Establishing the precise role that digital gaming plays in the study of networks is admittedly a much larger task that can be accomplished within the parameters of the present project. Nevertheless, given the cultural importance of

⁷ Older models of aesthetics must be modified with the examination of computer code and interactivity. For example, the concept of “elegance” as it operated in mathematics and the sciences is also vital to the analysis of the computer code and programs that enable many pieces of new media art and games. Elegance, in the sense of simplicity, consistency, and effectiveness, is not the only or even necessarily a desired aesthetic principle of new media art, but it is an example of one concept that transforms aesthetic thought in the digital era.

interactive games, since the 1960s, I would like to demonstrate how they might contribute to as well as complicate a primarily literary and visual analysis of network aesthetics. Like the other forms and media I have addressed, electronic gaming offers numerous perspectives on the intermingling of networks and terror in contemporary America.⁸ While many games feed into the politics of fear that have sustained the network of contemporary American power, some recent innovative games also provide more generative models of interconnected communities. I end this dissertation with a brief discussion of games that engage aesthetically and algorithmically with networks. This analysis gestures toward the ways that the study of digital games, and what Chesher, Crawford, and Kücklich call “the politics of play,” promise to create a multidirectional circuit between traditional literary criticism and new media studies. The linkages between old and new media, between literature and technoscience, and between art and politics, are the connections that most effectively define my inherently interdisciplinary concept of network aesthetics.

⁸ Stephen R. Russell designed what many scholars acknowledge as the first computer game, *Spacewar!*, for the Digital Equipment Corporation’s PDP-1 computer in 1962. As the game’s title suggests, the subject matter of this early game emerged directly from the Cold War balance of terror. Thus, the connection between terror and gaming networks is not an incidental development, but part of the historical foundation of game production.

6.1 Interactive Game Networks

Digital games, like all creative works, must be read as both cultural and material artifacts. The networks that undergird so much of new media production, including electronic games, also require additional layers of analysis that I can only introduce in these final pages. In our network era, many literary and artistic works do not merely represent interconnected structures — they frequently *depend* on networks for their very operation. Like other new media works, digital games rely upon dynamic interactivity and network connectivity. Even as serious game studies is less than two decades old, it is clear that this field cannot restrict itself to questions of narrative form or visual content, but must also raise media-specific questions about game rules, control physics, platform constraints, economic contexts, and social networks formed among players. A thorough analysis of network aesthetics, in other words, must encompass an understanding of material network protocols and algorithms, which can both restrict and open new possibilities for cultural meaning making.

For all of their technical innovations, digital games, in general, have not been as visionary as they could be. As gaming has grown in popularity, profit generation has overtaken genuine innovation and a concern with social activism as the primary

motivation for game production.⁹ In 2008, sales in the computer and video game industries rose to \$22 billion, far outpacing the film, music, and publishing sectors (Entertainment Software Association). As this figure suggests, digital games are not only a prominent form of contemporary entertainment but a key component of informational capitalism, which was founded on the organizational logic of the network. According to Stephen Kline, Nick Dyer-Witheford, and Greig de Peuter, interactive play “appears as a quintessential product of digital capitalism’s ‘new economy’” (13). Especially in America, where gaming makes for huge business at the start of the twenty-first century, game networks are shaped and transformed by financial networks of power. Games depend on technological and creative advancements, but they also participate in the logic of profit and the laws of the postindustrial network economy.

The economics of the game industry explain a great deal about the forms and genres that have achieved primacy since the late twentieth century. Given the profit motives of the gaming industry, proven genres such as the action-packed first-person shooter have dominated the market. A host of conventional violent games reproduce the anxieties about networks of terror that I have discussed throughout

⁹ As I suggest in my first chapter, innovation is as much a capitalist buzzword as a designation of real imagination. Nevertheless, in this passage, I am signaling games that use innovative design to explore, challenge, or change features of the sociopolitical world.

this project. These types of games inspire fears about terrorist networks (Valve Software's *Counter-Strike* and Ion Storm's *Deus Ex*), foreign enemy hive minds (Bungie's *Halo*), emerging infectious disease ecologies (Icarus Studios' *Fallen Earth*), and sentient rogue computer networks (Shiny Entertainment's *Enter the Matrix*).¹⁰ While some of these games complicate their genre-derived premises, their modes of gameplay do little to inspire sophisticated thought about the nature of contemporary networks.

One game that employs network aesthetics, but directs its style to conventional and politically conservative ends is *24: The Game* (Sony Computer Entertainment Studio 2006) — a single-player shooter with a narrative that takes place between the second and third seasons of the original FOX television series.¹¹ The episodic plot of the game includes a terrorist attempt to assassinate American

¹⁰ Of course, not one of these games is simple and worthy of straightforward dismissal. Each deserves a detailed reading. Nevertheless, for all of their accomplishments, these games take an overly Manichean stance in their use and representation of different types of networks. For example, *Counter-Strike* — a tactical first-person shooter, which began as a user modification to the hit PC game *Half-Life* (Valve, 1998) — converts a network of terror into a trigger-happy enterprise. The game consists of a multiplayer online network of users who, upon signing into the game, join a counter-terrorist team or a terrorist cell. Both units seek to destroy all of the players on the opposing team or to complete limited mission objectives such as planting bombs or rescuing hostages. While *Counter-Strike* allows a user to play as a counterinsurgent, the game does not undermine the dominant discourse of terrorist networks as Evil anti-American enemies nor does it encourage any substantive identification with a non-American perspective. The terrorist characters are unequivocally stereotypical aggressors — violent villains who serve a primarily decorative role in a game that privileges multiplayer competition.

¹¹ It is worth remarking that the television show *24* already draws its form as much from an action-packed video game as from the TV serial. The discrete stages of the show operate much like videogame “levels.” Each episode has identifiable goals, standard obstacles, and minor criminal targets (“bosses” in a game vocabulary) en route to the ultimate villain (“the last boss”). Each season of the show is functionally composed of 24 episode-levels.

Vice-President Jim Prescott, an attack on the Los Angeles Counter-Terrorist Unit (CTU), and another major attack that seeks to destabilize the United States. To a degree, the game incorporates network designs into its visual style and even the gameplay. In one mini-game — a short, stylistically divergent game that appears within the frame of the primary game — a computer network-protected lock requires a password hack. In another mini-game in which the player uses a circuit breaker to defuse bombs, the bomb circuitry is depicted as a network of CPU cubes that are linked by colored data lines through which the player must find a path. Throughout the game, the user navigates a multi-screen format and switches among different character avatars. In this sense, the game reproduces both the technological fascination and the speed aesthetic that drives the television show's interlocked cast of characters.

Despite numerous positional perspectives, the game does not offer access to divergent points of view that would make up a truly heterogeneous network. The perspectives change, but these superficial interfaces all belong to CTU agents who work against the clock to defeat the conspiratorial terrorist network threat. Both terrorist and computer networks recur but only in service of building suspense and fear. The game, like the television show, takes place in a perpetual state of emergency that sharpens the distinctions between friends and enemies. The

unknown and potentially apocalyptic nature of the terrorist network threat justifies a response by any means necessary, regardless of legality. This logic, which belongs to the broader genre of the frantic first-person shooter in which nearly everything on screen can become a target, legitimates the killing of terrorists. In the game, this mode of thought becomes most clear during an “interrogation” mini-game that requires a player to strike a balance among aggressively questioning, gently coaxing, and actively calming a terrorist suspect in order to “break” him within a limited span of time. In this sequence, the terrorist cannot be befriended or engaged as a fellow human being. He becomes nothing more than a function to be manipulated or a reserve to be tapped for information. This instrumentalization of the enemy is indicative less of the inherent faults of gaming as a medium than of a conventional approach to game production that fuses an established political ideology with an algorithmic model of gameplay.

While the financial dimension of the game industry motivates the reproduction of established genres, innovative designers in recent years have started experimenting with games that help us better understand the structural and political aspects of contemporary networks. It is perhaps unsurprising that the vast majority of games that have grappled generatively with network aesthetics have come from independent producers. One of the few exceptions to this trend has been a series of

innovative games designed by Will Wright, including *SimCity* (1989), *The Sims Online* (2002), and *Spore* (2008), which have explored the establishment and structure of macro-level systems.¹² Aside from such anomalies, however, most politically and socially sophisticated games have come from the growing DIY (Do It Yourself) culture (Bearman). In the final pages of this coda, I briefly discuss three independently-produced games: *September 12th: a toy world* (2003), *Killer Flu* (2009), and *Virtual Peace* (2009). In different ways, these games reveal not only more complex ways of thinking about interactive network aesthetics but also posit different types of non-commercial collaborations and creative networks capable of producing inventive, engaging, and socially responsible games.

The first game, *September 12th: a toy world* (Newsgaming 2003), uses a comparatively simple design to reflect on the phenomenon of terrorist networks. Without complex play mechanics, this interactive Flash piece nevertheless raises self-reflexive questions about games and networks. As it announces in its opening screen, *September 12th* is not a traditional type of “game” that players can “win or lose.” Upon initiating the simulation, the user is given access to a missile cross-hair

¹² One of Wright’s early games, which examines ecological networks, is *SimEarth: The Living Planet* (Maxis 1990). Functioning as an interactive simulation of James Lovelock’s Gaia hypothesis, this “God game” posits the Earth as a homeostatic system that the player must keep in balance. To make game play more exciting, as players struggle to preserve their planetary network over billions of years, they face threats from major tsunamis to civilization-ending nuclear wars. Despite these terrifying obstacles, the game is fundamentally an engagement with network design and structure.

that can be moved over a scrolling screen that depicts a Middle Eastern city populated by cartoon-style terrorists and civilians. As the instructions read, “The rules are deadly simple. You can shoot. Or not. This is a simple model you can use to explore some aspects of the war on terror.” As it turns out, even if the player shoots exclusively at the terrorist figures — ominous characters that initially make up a small minority of the city inhabitants — the collateral damage produced by fired missiles inevitably kills civilians. As soon as even a single civilian dies, survivors surround the rubble to mourn the loss. Through a simple animation, these civilians grow angry and transform into terrorist figures. If the player continues to fire missiles, the city’s infrastructure is eventually decimated and all of its inhabitants are converted into terrorists.

While basic in its design, *September 12th* makes a persuasive causal argument about the connection between American military networks and the terrorist networks that form in response to their aggression. Unlike games such as *Counter-Strike* or *24: The Game* that provide numerous incentives for killing enemy combatants, *September 12th* uses its interactivity to remind players that they have a choice *not* to shoot. Games, whether played on a computer or in the context of real wars, offer not just the possibility of victory but also a preliminary choice about engagement. *September 12th* uses the medium of gaming and its constraints to remind

users that they always have a choice *not to play* or to question those games that use networks to produce terror.

While *September 12th* uses a minimal interface to explore the nature of interactivity and to make a directed argument about terrorist networks, the social activist game *Killer Flu* (Persuasive Games 2009) uses a more multifaceted design to examine viral transmission across emerging infectious disease networks. This game belongs to a genre of social activist games often produced by independent designers, which includes Frederik Hermund's *Third World Farmer* (2006) and other Persuasive Games titles such as *Oil God* (2006).¹³ To achieve its own social commentary, *Killer Flu* adds a twist to the standard global contagion and apocalyptic plague narratives that saturate popular culture.¹⁴ The user actually plays as an avian flu pandemic, attempting to mutate and infect the population throughout an expansive

¹³ *Third World Farmer* has the player take the role of an African farmer who must survive by planting crops, raising animals, building infrastructure, and traversing constant hardships. From year to year, the local farmer is increasingly caught up with a network of global affairs, including national guerrilla wars, land leases to American chemical companies, and unpredictable crop prices that are dictated by an economy that serves Western interests. The game ends inevitably with death and defeat. At that moment, the game offers a prompt — “Rules unfair? Game rigged? Think about the people to whom this isn't a game, but everyday life. Please visit the relief agencies on this page to learn more about how you can help” — and links the player to a webpage that enables further political participation. In this way, *Third World Farmer* bridges entertainment and political action, linking the frustration and empathy garnered during interactive gameplay to real-world engagement in affairs that are linked to the accumulation of First World wealth. *Oil God* uses interactive irony to investigate the relationship between gas prices, geopolitics, and oil profits. The player takes the role of an oil god who uses war and disaster to increase oil profits.

¹⁴ For a massively multiplayer online game that relies on a postapocalyptic viral premise, see *Fallen Earth* (Icarus Studios 2009).

geographical network that changes each time the game is played.¹⁵ The gameplay consists of clicking on various non-player characters (NPCs), transforming a flu strain in order to infect them, and directing those NPCs across the game grid to highly populated areas. In order to win, the player must infect 25% of the population within the allotted time.

Through its gameplay and information about viral transmission, *Killer Flu* both criticizes the use of network language to perpetuate fear and suggests an alternative way of thinking about networks. Despite its dependence on mutation and infection, the game does not reproduce an underlying affect of hysterical terror, such as that voiced by World Health Organization director-general Margaret Chan who warned that, when it comes to viral pandemics such as the swine flu, “it really is all of humanity that is under threat.” The introduction to the game complicates emerging infectious disease narratives by calling its own title into question, “Killer Flu!! Or, maybe, ‘non-killer flu’ to describe the current outbreak of swine flu!” The webpage that leads to the main game explains even more explicitly, “In spring 2009, panicked headlines appeared worldwide warning of the dangerous ‘swine flu.’ Reading the papers, you'd think that pandemics are like magical epidemiological tidal waves that rise and cover the planet. But the truth is, pandemic flus are rare

¹⁵ The site explains, “Among its features, Killer Flu generates a new world every time you play it, underscoring the geographic contingencies in the development and spread of pandemic flu.”

and unusual strains are far harder to spread than popular discourse might make it seem.”¹⁶ The game underscores the folly of panic through the skill necessary to beat it, especially at the highest difficulty level. Winning requires rapidly directing infected carriers to a large percentage of public areas in order to increase the chance of further transmission between towns and cities. This highly contingent viral ecology reveals how precarious network threats actually are. In place of networks of terror, *Killer Flu* posits cooperative networks that can distribute public health information about the proliferation of disease. In fact, the page on which users play the game offers links to the “UK Clinical Virology Network,” which commissioned *Killer Flu*. This network promotes the “co-ordination of clinical protocols and algorithms, sharing of any information on test performance, regular scientific meetings and pooling of intellectual resources” (UK Clinical Virology Network). Instead of spreading fear, this organization spreads awareness and improves epidemiological services.

Unlike *September 12th* and *Killer Flu*, the third game that interests me, *Virtual Peace* (2009), uses real-time network interactions to help players understand the dynamics of political negotiations. *Virtual Peace*, produced by a development team

¹⁶ Margaret Chan’s comment appears on the *Killer Flu* website and is drawn from the *CNN Health* article “Confirmed Swine Flu” (April 30, 2009).

that was led by Timothy Lenoir, does not even offer a single-player mode.¹⁷ Instead this online simulation encourages groups of players to engage in disaster resolution after the major international emergency of Hurricane Mitch. Players role-play as the heads of impacted governments, major NGOs, and United Nations agencies. They control three-dimensional avatars and engage in coordination, collaboration, and diplomacy efforts that are made more challenging given limited time and resources. Through a website that collects information about the actual natural disaster as well as a process of after-action review, *Virtual Peace* teaches players about political response networks and simulates participation in such structures. Unlike many mass media outlets, the game does not sensationalize the terror of natural disasters or feed parasitically on the sublimity of destruction often elicited by disaster pornography. Instead of objectifying a threatening web of disaster, *Virtual Peace* uses an interactive network of players to address complicated political issues.

As the *Virtual Peace* website explains, policy decisions regarding emergency situations are the product of complex networks of people, organizations, and viewpoints: "Policy formulation depends upon interactive problem solving that is

¹⁷ As the game website explains, *Virtual Peace* is an "interdisciplinary collaboration among experts and educators at the Duke-UNC Rotary Center for International Studies in Peace and Conflict Resolution, Virtual Heroes (a Durham, NC-based developer of game-based training and learning environments), Duke University's Visual Studies Initiative, the Duke Computer Science Department, and the Program for Information Science + Information in Society at Duke."

sensitive to the complexity of global economic and social problems, and understanding of different international, regional and national perspectives.

Understanding the environment and operation of the political process is essential to formulating critical judgments concerning important policy issues. Moreover, policy making requires the involvement of stakeholders as active participants in the policy process at different levels of societal organization." *Virtual Peace* does not merely reproduce the content that circulates through webs of political actors but uses the medium of gaming to express network relations through a multiplicity of forms. Effective diplomacy in the game depends on management of textual, visual, and audio data, as well as interactions with other participants. As the site explains, "Through computer games one can learn to appreciate the inter-relationship of complex behaviors, signs (images, words, actions, symbols, etc.) systems, and the formation of social groups."

In addition to exploring networks through the content, form, and medium of the game simulation, *Virtual Peace* suggests a novel model of network collaboration at the level of production. Instead of coming exclusively from commercial sources, which tend to privilege profits to innovative design, this game is the product of an interdisciplinary and inter-institutional initiative that brought together experts in such fields as new media studies, computer science, and international relations.

Combining the expertise of scholars from the humanities and the sciences, interactions between professors and students, and collaborations between the Virtual Heroes game company and academics at Duke University, *Virtual Peace* breaks down many of the boundaries on which game production frequently relies. The method that made this game possible suggests a critical link between production process and the imaginative scope of game design. As *Virtual Peace* suggests, networks are not simply objects of representation. They are also structures that help us think more generatively about and with the creative communities in which we participate. Perhaps more than any other medium, digital games can only be built and understood by means of diverse networks of people with numerous skill sets. The communities created to produce games such as *Virtual Peace* challenge academics, especially those working within historically solitary branches of the humanities, to augment individual work with a more collaborative mode of network.

6.2 Human Interconnection and Humane Interdependence

Even a brief study of games reveals that disciplinary configurations such as art and technology, the humanities and sciences, are themselves becoming inextricably interconnected. As a growing body of research in coming years is likely to be devoted to the study of gaming platforms, digital software, and other technical

matters, the sociopolitical commitments of the humanities will undoubtedly change, but they cannot be forgotten altogether.¹⁸ Too often, in the process of being converted into a sexy buzzword, “interdisciplinary studies” merely reproduces the obsession with newness and innovation that has already been a facet of capitalism’s operating system for decades. At its best, however, multidisciplinary research weaves a web that stretches across the past, the present, and the future. It establishes a network of knowledge, recognizing and forging new links among social and technoscientific nodes. This dissertation has attempted an analysis of cultural representations and material structures, literary aesthetics and network science, which moves among these realms rather than merely applying one to the other.

As Cathy Davidson and David Theo-Goldberg have remarked, “The humanities have a central place in exploring the possibilities, the reach and implications, of digital technologies and cultures: how technology shapes what we think about the human and the humane” (5). Networks are figures that can help us link questions about the “human and the humane” to those about science, technology, and culture. As I have noted repeatedly, the network paradigm shift that

¹⁸ A number of recent books have already attempted to analyze intersections between the technical aspects of hardware and software, on the one hand, and humanistic concerns with society, politics, and culture on the other. One example is the MIT Press book series on “Platform Studies,” which includes Nick Montfort and Ian Bogost’s *Racing the Beam: The Atari Video Computer System*. Another emerging area of study is “software studies,” which includes Matthew Fuller’s *Software Studies: A Lexicon*.

took place in the mid-twentieth century transformed rather than eliminated many forms of discrimination and inequality that have plagued the United States for centuries. For all of their newness, emerging media do not definitively settle older questions about race, class, gender, and human injustice.¹⁹ Analyzing networks, however, can open up the structural aspects of injustice. The study of networks also helps us envision alternative forms of organization and community that challenge a predominantly capitalist vision of the world.

The prose texts, films, television shows, video games, and other media I have analyzed encourage readers to address deep social structures and relations among human beings. The world is still wired with terror, not to mention the hate that is its inevitable byproduct. The tragedy of this state of affairs is that human beings cannot survive in the fractured isolation that accompanies politically-motivated fear.

Whatever forms the future might take, the lives of Americans and non-American alike are likely to grow increasingly interconnected: a reality that can prove, at times,

¹⁹ This persistence of injustice in the digital realm takes an extreme form in the independently released game called *Ethnic Cleansing* (Resistance Records 2002) in which the player chooses either a Klansman or skinhead avatar and enters a ghetto littered with white supremacist propaganda. With gun in hand, the user proceeds to kill caricatured African American, Latino, and Jewish figures on the way to a “Jewish Control Center” in which Ariel Sharon, who is discovered plotting world domination, must be assassinated. Games such as *Ethnic Cleansing*, as well as less extreme digital engagements with society, require careful study. Lisa Nakamura argues that an ideal balance between the social and technical analysis of new media can be gained by learning from both its humanistic and scientific versions. As she puts it, “studies of digital visual culture have yet to discuss networking, social spaces, or power relations in terms of race, ethnicity, and gender, but have done a superb job at parsing the history of digitality’s address to the eye. Studies from a communications perspective have discussed the dynamics of online interaction quite exhaustively but fail to integrate their findings into readings of what the sites do visually” (Nakamura 10).

both exploitative and enabling. Understanding the nature of global linkages — and the reasons that contemporary society privileges the network as the primary metaphor for understanding connectivity — is crucial to the collective transformation of the world. Such knowledge is also a necessary prerequisite for any honest pursuit of justice, however asymptotic that goal may be, not merely for ourselves but for those others with whom we are inevitably interdependent.

Works Cited

- Aarseth, Espen. *Cybertext: Perspectives on Ergodic Literature*. Baltimore: Johns Hopkins University Press, 1997.
- Agamben, Giorgio. *Homo Sacer: Sovereign Power and Bare Life*. Daniel Heller-Roazen, trans. Stanford: Stanford University Press, 1995.
- Alt, Casey. "Objects of Our Affection: How Object-Orientation Made Computation a Medium." In *Media Archaeologies: Approaches, Applications, and Implications*. Erkki Huhtamo and Jussi Parikka, eds. Berkeley: University of California Press, forthcoming in 2010.
- Altman, Rick. "Dickens, Griffith, and Film Theory Today." In *Classical Hollywood Narrative: The Paradigm Wars*. Jane Gaines, ed. Durham: Duke University Press, 1992.
- Apter, Emily. "On Oneworldedness: Or Paranoia As a World System." *American Literary History*. 18. 2 (2006): 365-389.
- Arendt, Hannah. *The Origins of Totalitarianism*. San Diego, CA: Harcourt, 1973.
- Arrighi, Giovanni. *Adam Smith in Beijing: Lineages of the Twenty-First Century*. London: Verso, 2007.
- Baccolini, Raffaella and Tom Moylan. *Dark Horizons: Science Fiction and the Dystopian Imagination*. New York: Routledge, 2003.
- Baer, Robert. *See No Evil: The True Story of a Ground Soldier in the CIA's War on Terrorism*. New York: Three Rivers Press, 2003.
- Balsamo, Anne Marie. *Technologies of the Gendered Body: Reading Cyborg Women*. Durham: Duke University Press, 1996.
- Barabási, Albert-László. *Linked: how everything is connected to everything else and what it means for business, science, and everyday life*. New York: Penguin Books, 2003.
- Barnett, Thomas P.M. *The Pentagon's New Map: War and Peace in the Twenty-First Century*. New York: Putnam, 2004.

- Baudrillard, Jean. *Simulacra and Simulation*. Sheila Faria Glaser, trans. Ann Arbor: The University of Michigan Press, 1994.
- . *The spirit of terrorism and other essays*. London: Verso, 2003.
- Bearman, Joshua. "Can D.I.Y. Supplant the First-Person Shooter?" *New York Times Magazine* (November 13, 2009).
- Benkler, Yochai. *The Wealth of Networks*. New Haven: Yale University Press, 2006.
- Berners-Lee, Tim, and Mark Fischetti. *Weaving the Web: The Original Design and Ultimate Destiny of the World Wide Web by Its Inventor*. San Francisco: HarperSanFrancisco, 1999.
- Bersani, Leo. "Pynchon, Paranoia, and Literature." *Representations*. 25 (1989): 99-118.
- Bethke, Bruce. "Cyberpunk." *Amazing Science Fiction Stories* Volume 57, Number 4 (November 1983).
- Bing, Jonathan. "The Ascendance of Don DeLillo." *Publisher's Weekly* (August 11, 1997).
- Boellstorff, Tom. *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human*. Princeton: Princeton University Press, 2008.
- Bolter, Jay David, and Richard Grusin. *Remediation: Understanding New Media*. Cambridge: The MIT Press, 1999.
- Bordwell, David and Kristin Thompson. *Film Art: An Introduction*. Boston: McGraw-Hill, 2005.
- Bourke, Joanna. *Fear: A Cultural History*. Emeryville, CA: Shoemaker Hoard, 2006.
- Brown, Frederic. *Angels and Spaceships*. New York: Dutton, 1954.
- Buchanan, Mark. *Nexus: Small Worlds and the Groundbreaking Theory of Networks*. New York: W.W. Norton & Company, 2002.
- Burke, Edmund. *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful*. Oxford: Oxford University Press, 2009.
- Burroughs, William S. *The Soft Machine*. New York: Grove Press, 1966.

- Bush, Vannevar. "As We May Think." *The Atlantic*. 176. 1 (1945).
- Bushnell, Rebecca W. *Tragedy: A Short Introduction*. Blackwell introductions to literature, 18. Malden, MA: Blackwell Pub, 2008.
- Cadigan, Pat. *Synners*. New York: Four Walls Eight Windows, 2001.
- Cárdenas, Micha. "From Tactical Politics to Virtual Politics." Forthcoming in *Intelligent Agent*, 2010.
- Castells, Manuel. *The Rise of the Network Society*. Oxford: Blackwell Publishers, 1996.
- Castronova, Edward. *Synthetic Worlds: The Business and Culture of Online Games*. Chicago: University of Chicago Press, 2005.
- . *Exodus to the Virtual World: How Online Fun Is Changing Reality*. New York: Palgrave Macmillan, 2007.
- Chesher, Chris. "Neither gaze nor glance, but glaze: relating to console game screens." *SCAN Journal of Media Arts Culture*, vol. 1, no. 1 (2004).
- Chesher, Chris, Alice Crawford and Julian Kücklich. "Gaming Networks," *Fibreculture* 8 (October 2006), journal.fibreculture.org/issue8/index.html
- Chow, Rey. *The Age of the World Target: Self-Referentiality in War, Theory, and Comparative Work*. Durham: Duke University Press, 2006.
- Chun, Wendy Hui Kyong. *Control and Freedom: Power and Paranoia in the Age of Fiber Optics*. Cambridge, Mass: MIT Press, 2006.
- Ciccoricco, David. *Reading Network Fiction*. Tuscaloosa: The University of Alabama Press, 2007.
- Cohen, Matt. *The Networked Wilderness: Communicating in Early New England*. Minneapolis: University of Minnesota Press, 2010.
- Cordesman, Anthony and Justin G. Cordesman. *Cyber-threats, Information Warfare, and Critical Infrastructure Protection: Defending the U.S. Homeland*. Westport, CT: Praeger Publishers, 2002.
- Counter-Strike*. Version 1.6. Valve Software. 2003.

- Cowart, David. "FOCUS - From the Mainstream - Mogul Mojo - *Cosmopolis*." *The American Book Review*. 24. 5 (2003): 1.
- Crane, David. "In Medias Race: Filmic Representation, Networked Communication, and Racial Intermediation." In *Race in Cyberspace*. Beth E. Kolko, Lisa Nakamura, and Gilbert B. Rodman, eds. New York: Routledge, 2000.
- Crichton, Michael. *Prey: Novel*. New York: Harper Collins Publishers, 2002.
- Cunningham, Douglas A. "Stalling Zion: Hegemony, Whiteness, and Racial Discourse in *The Matrix* Phenomenon." In *At Home and Abroad: Historicizing Twentieth-Century Whiteness in Literature and Performance*. La Vinia Delois Jennings, ed. Knoxville: University of Tennessee Press, 2009.
- Dahlberg, Steven. "Creativity by Choice, Not by Chance: Developing Imagination in the Intelligence Community." *International Centre for Creativity and Imagination Advocacy Paper*, August 9, 2004,
<http://www.appliedimagination.org/intelligence.pdf>
- Darley, Andrew. *Visual Digital Culture*. London: Routledge, 2000.
- Davidson, Cathy N. and David Theo Goldberg. "A Manifesto for the Humanities in a Technological Age." *Chronicle of Higher Education* (February 12, 2004).
- Debord, Guy. *The Society of the Spectacle*. New York: Zone Books, 1994.
- De Landa, Manuel. *War in the Age of Intelligent Machines*. New York: Zone Books, 1991.
- Deleuze, Gilles. *Cinema 1: The Movement-Image*. London: Athlone, 1986.
- Deleuze, Gilles, and Félix Guattari. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis: University of Minnesota Press, 1987.
- DeLillo, Don. *Americana*. Boston: Houghton Mifflin, 1971.
- . *Players*. New York: Vintage Books, 1977.
- . *The Names*. New York: Knopf, 1982.
- . *Mao II*. New York, N.Y., U.S.A.: Viking, 1991.

- . *Underworld*. New York, NY: Scribner, 1997.
- . "In the Ruins of the Future." *Harper's magazine* (December 2001).
- . *Cosmopolis*. New York: Scribner, 2003.
- . *Falling Man*. New York: Scribner, 2007.
- Derrida, Jacques. *Specters of Marx: The State of the Debt, the Work of Mourning, and the New International*. New York: Routledge, 1994.
- Derrida, Jacques, Habermas, Jürgen, and Giovanna Borradori. *Philosophy in a Time of Terror: Dialogues with Jürgen Habermas and Jacques Derrida*. Chicago: University of Chicago Press, 2003.
- Dimand, Mary Ann and Robert W. Dimand. *A History of Game Theory*. Routledge studies in the history of economics. London: Routledge, 1996.
- Dimock, Wai Chee and Lawrence Buell. *Shades of the Planet: American Literature as World Literature*. Princeton: Princeton University Press, 2007.
- Douglas, Mary. *How Institutions Think*. The Frank W. Abrams lectures. Syracuse, N.Y.: Syracuse University Press, 1986.
- Dozois, Gardner R. *Living the Future: You Are What You Eat*. Writer's chapbook series, #31. Eugene, OR: Writer's Notebook Press, Pulphouse Pub, 1991.
- Du Bois, W. E. B. *The Souls of Black Folk*. New York: Barnes & Noble Classics, 2003.
- Ebert, Roger. *Syriana*. *Chicago Sun-Times*, December 9, 2005.
- Ebert, Teresa L. *The Task of Cultural Critique*. Urbana: University of Illinois Press, 2009.
- Ege, Konrad. "The Terror What?" in *Journal of Palestine Studies*, Vol. 11, No. 4, (Summer- Autumn, 1982).
- Eichengreen, Barry J. *Globalizing Capital: A History of the International Monetary System*. Princeton, N.J.: Princeton University Press, 1996.
- Eisenstein, Sergei. *Film Form [and] The Film Sense; Two Complete and Unabridged Works*. New York: Meridian Books, 1957.

- Ellis, Bret Easton. *American Psycho*. New York: Vintage Books, 1991.
- Englehart, Steve, Dick Dillin, and Frank McLaughlin. "Return From Forever!" *Justice League of America* #142. DC Comics, May 1977.
- Entertainment Software Association. "Computer and Video Game Industry Tops \$22 Billion in 2008: December Software Sales Help Set New Record." January 28, 2009. www.theesa.com/newsroom/release_detail.asp?releaseID=44
- Ethnic Cleansing*. Resistance Records. 2002.
- Fallen Earth*. Icarus Studios. 2009.
- Fanon, Franz. *The Wretched of the Earth*. New York: Grove Press, 1963.
- Fass, Craig, Brian Turtle, and Mike Ginelli. *Six Degrees of Kevin Bacon*. New York, NY: Plume, 1996.
- Felski, Rita. *Rethinking Tragedy*. Baltimore: Johns Hopkins University Press, 2008.
- Fiedler, Leslie. *Love and Death in the American Novel*. New York: Stein and Day, 1966.
- Filger, Sheldon. *King of Bombs: A Novel About Nuclear Terrorism*. Bloomington, (Ind.): AuthorHouse, 2006.
- Finney, Jack. *Invasion of the Body Snatchers*. New York: Scribner, 1998.
- Fitzpatrick, Kathleen. *The Anxiety of Obsolescence: The American Novel in the Age of Television*. Nashville: Vanderbilt University Press, 2006.
- Foucault, Michel. *The Order of Things: An Archeology of the Human Sciences*. New York: Vintage Books, 1970.
- . *Discipline and Punish: The Birth of the Prison*. Alan Sheridan, trans. New York: Vintage Books, 1977.
- . "Of Other Spaces," *Diacritics* 16 (Spring 1986).
- Fraction, Matt, Salvador Larroca, and Frank D'Armata. "The Five Nightmares." *The Invincible Iron Man* #1-6. Marvel Comics, 2008.
- Frاند, Harvey, et al. *Battlestar Galactica*. Universal City, CA: Universal, 2005.

- Friedman, Milton. *Capitalism and Freedom*. Chicago: University of Chicago Press, 1962.
- Fuller, Matthew. *Software Studies: A Lexicon*. Cambridge, Mass: MIT Press, 2008.
- Gaghan, Stephen, et al. *Syriana*. Burbank, CA: Warner Bros. Pictures, 2006.
- Galloway, Alexander and Eugene Thacker. *The Exploit: A Theory of Networks*. Minneapolis: University of Minnesota Press, 2007.
- Galloway, Alexander. *Protocol: How Control exists After Decentralization*. Cambridge: The MIT Press, 2004.
- Garrett, Peter K. *The Victorian Multiplot Novel: Studies in Dialogical Form*. New Haven: Yale University Press, 1980.
- Geyh, Paula. *Cities, Citizens, and Technologies: Urban Life and Postmodernity*. New York: Routledge, 2009.
- Gibson, William. *Neuromancer*. New York: Ace Books, 1984.
- . *Count Zero*. New York: Arbor House, 1986.
- . *Mona Lisa Overdrive*. Toronto: Bantam Books, 1988.
- . *Spook Country*. New York: G.P. Putnam's Sons, 2007.
- Gitlin, Todd. *Media Unlimited: How the Torrent of Images and Sounds Overwhelms Our Lives*. New York: Metropolitan Books, 2001.
- Goldberg, David Theo. *The Threat of Race: Reflections on Racial Neoliberalism*. Malden, MA: Wiley-Blackwell, 2009.
- Goldsmith, Jack and Tim Wu. *Who Controls the Internet? Illusions of a Borderless World*. Oxford: Oxford University Press, 2006.
- Gottlieb, Erika. *Dystopian Fiction East and West: Universe of Terror and Trial*. Montreal: McGill-Queen's University Press, 2001.
- Greenspan, Alan. *The Challenge of Central Banking in a Democratic Society: Remarks by Alan Greenspan, Chairman, Board of Governors of the Federal Reserve System at the Annual Dinner and Francis Boyer Lecture of the American Enterprise Institute for*

Public Policy Research, Washington, D.C., December 5, 1996. Washington, DC: Board of Governors of the Federal Reserve System, 1996.

Grewal, David Singh. *Network Power: The Social Dynamics of Globalization*. New Haven: Yale University Press, 2008.

Hall, Stuart. "Race, Articulation, and Societies Structured in Dominance." In *Race Critical Theories: Text and Context*. Philomena Essed and David Theo Goldberg, eds. Malden, Massachusetts: Blackwell Publishing, 2002.

Hamid, Rahul. "Lord of War," *Cineaste*, v31 i2, 52[4] (Spring 2006).

Hansen, Mark. *Embodying Technesis: Technology Beyond Writing*. Studies in literature and science. Ann Arbor, Michigan: University of Michigan Press, 2000.

Hardt, Michael and Antonio Negri. *Empire*. Cambridge: Harvard University Press, 2001.

Harris, Robert R. "A Talk with Don DeLillo." *The New York Times* (October 10, 1982).

Harvey, David. *Spaces of Hope*. California studies in critical human geography 7. Berkeley: University of California Press, 2000.

---. *The New Imperialism*. Oxford: Oxford University Press, 2003.

Hayles, N. Katherine. *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics*. Chicago: University of Chicago Press, 1999.

---. *My Mother Was a Computer: Digital Subjects and Literary Texts*. Chicago: University of Chicago Press, 2005.

---. *Electronic Literature: New Horizons for the Literary*. Notre Dame, Indiana: University of Notre Dame Press, 2008.

Heidegger, Martin. "Age of the World Picture." In *The Question Concerning Technology and Other Essays*. William Lovitt, trans. New York: Harper & Row, 1977.

Hegel, Georg Wilhelm Friedrich. *Hegel, on the Arts: Selections from G.W.F. Hegel's Aesthetics, or the Philosophy of Fine Art*. Henry Paolucci, ed. Smyrna, DE: Griffon House, 2001.

- Heuser, Sabine. *Virtual Geographies: Cyberpunk at the Intersection of the Postmodern and Science Fiction*. Postmodern studies, 34. Amsterdam: Rodopi, 2003.
- Hill, Mike. "'Terrorists Are Human Beings': Mapping the U.S. Army's 'Human Terrain Systems' Program." *Differences*. 20. 2 (2009): 250.
- Hofstadter, Richard. *The Paranoid Style in American Politics and Other Essays*. New York: Knopf, 1965.
- Hogue, W. Lawrence. *Postmodern American Literature and Its Other*. Urbana and Chicago: University of Illinois Press, 2008.
- Isaacs, Harold R. "Color in World Affairs." *Foreign Affairs*. 47. 2 (1969): 235-250.
- Jameson, Fredric. "Third-World Literature in the Era of Multinational Capitalism." *Social Text* 15 (1986).
- . "Cognitive Mapping." In *Marxism and the Interpretation of Culture*. Cary Nelson and Lawrence Grossberg, eds. Urbana: University of Illinois Press, 1988.
- . *Postmodernism, or The Cultural Logic of Late Capitalism*. Durham, NC: Duke University Press, 1991.
- . *Archaeologies of the Future: The Desire Called Utopia and Other Science Fictions*. New York: Verso, 2005.
- Johnson, Chalmers. *Blowback: The Costs and Consequences of American Empire*. New York: Metropolitan Books, 2000.
- . "Blowback." *The Nation* (October 15, 2001).
- Johnson, Steven. *Emergence: The Connected Lives of Ants, Brains, Cities, and Software*. New York: Scribner, 2001.
- Joseph, Peniel E., ed. *The Black Power Movement: Rethinking the Civil Right-Black Power Era*. New York: Routledge, 2006.
- Käkelä-Puumala, Tiina. "A Weird Death: The Schwarzkommando and the Symbolic Challenge in *Gravity's Rainbow*." *Pynchon Notes* 54-55 (2008): 195-215

- Kant, Immanuel. *Critique of Judgment*. J. H. Bernard, trans. New York: Hafner Pub. Co, 1951.
- Kaplan, Caren. "'Everything is Connected': Aerial Perspectives, the 'Revolution in Military Affairs,' and Digital Culture." Presented at HASTAC Conference, "Electronic Techtonics: Thinking at the Interface," Duke University, April 20, 2007.
- . "Precision Targets: GPS and the Militarization of U.S. Consumer Identity," *American Quarterly*, Volume 58, Number 3, September 2006, 693-714.
- Kelly, John D. *The American Game: Capitalism, Decolonization, Global Domination, and Baseball*. Chicago: Prickly Paradigm Press, 2006.
- Kerouac, Jack. *On the Road*. Paw Prints, 2008.
- Kevorkian, Martin. *Color Monitors: The Black Face of Technology in America*. Ithaca, N.Y.: Cornell University Press, 2005.
- Killer Flu*. Persuasive Games. 2009.
persuasivegames.com/games/game.aspx?game=killerflu
- King, C. Richard and David J. Leonard. "Is Neo White? Reading Race, Watching the Trilogy." *Jacking Into the Matrix Franchise: Cultural Reception and Interpretation*. Matthew Kappel and William G. Doty, eds. New York: Continuum, 2004.
- Kittler, Friedrich. "Gramophone, Film, Typewriter." *October*. Vol. 41 (Summer 1987): 101-118.
- Klein, Naomi. *The Shock Doctrine: The Rise of Disaster Capitalism*. New York: Metropolitan Books/Henry Holt, 2007.
- Kline, Stephen, Nick Dyer-Witheford, and Greig De Peuter. *Digital Play: The Interaction of Technology, Culture, and Marketing*. Montréal: McGill-Queen's University Press, 2003.
- Knoke, David, and Song Yang. *Social Network Analysis*. 2nd Edition. Los Angeles: Sage Publications, 2008.

- Kolodny, Annette and Daniel James Peters. "Pynchon's *The Crying of Lot 49*: The Novel as Subversive Experience." *Modern Fiction Studies* 19 (Spring 1973): 79-87
- Kraniauskas, John. "Elasticity of Demand: Reflections on *The Wire*." *Radical Philosophy*. 154 (2009): 25.
- LaCapra, Dominic. *Writing History, Writing Trauma*. Baltimore and London: The Johns Hopkins University Press, 2001.
- Latour, Bruno. *Science in Action: How to follow scientists and engineers through society*. Cambridge: Harvard University Press, 1987.
- . *Reassembling the Social: An Introduction to Actor-Network-Theory*. Clarendon lectures in management studies. Oxford: Oxford University Press, 2005.
- Laurel, Brenda. *Computers As Theatre*. Reading, Mass: Addison-Wesley Pub, 1991.
- Lessig, Lawrence. *Code and Other Laws of Cyberspace*. New York: Basic Books, 1999.
- Levine, Caroline. "Narrative Networks: *Bleak House* and the Affordances of Form." *Novel: A Forum on Fiction* 42:3 (2009).
- Levine, George Lewis and David Leverenz, eds. *Mindful Pleasures: Essays on Thomas Pynchon*. Boston: Little, Brown and Company, 1976.
- Lindqvist, Sven. *A History of Bombing*. New York: The New Press, 2001.
- Liu, Alan. *The Laws of Cool: Knowledge Work and the Culture of Information*. The University of Chicago Press, 2004.
- Lomasky, Loren E. "The political significance of terrorism." In *Violence, Terrorism, and Justice*. Cambridge studies in philosophy and public policy. R. G. Frey and Christopher W. Morris, eds. Cambridge: Cambridge University Press, 1991.
- Lovink, Geert. "The Principles of Notworking." Amsterdam: Hogeschool van Amsterdam, 2005.

- Luis-Brown, David. *Waves of Decolonization: Discourses of Race and Hemispheric Citizenship in Cuba, Mexico, and the United States*. New Americanists. Durham: Duke University Press, 2008.
- Lyotard, Jean-François. *The Postmodern Condition: A Report on Knowledge*. Theory and history of literature, v. 10. Minneapolis: University of Minnesota Press, 1984.
- . "The Sublime and the Avant-garde." *Art Forum* 22.8 (April 1984).
- Mamdani, Mahmood. *Good Muslim, Bad Muslim: American, the Cold War, and the Roots of Terror*. New York: Pantheon Books: 2004.
- Manovich, Lev. *The Language of New Media*. Cambridge: MIT Press, 2001.
- Mattelart, Armand. *Networking the World, 1794-2000*. Minneapolis: University of Minnesota Press, 2000.
- Mattessich, Stefan. *Lines of Flight: Discursive Time and Countercultural Desire in the Work of Thomas Pynchon*. Post-contemporary interventions. Durham: Duke University Press, 2002.
- McCabe, Bret. "Case Closed: David Simon: The Wire Exit Interview." *Baltimore City Paper* (March 13, 2008).
- McCallum, E. L. "Mapping the Real in Cyberfiction." *Poetics Today* 21. 2 (2000): 349-377.
- McLaughlin, Robert L. "Unreadable Stares: Imperial Narratives and the Colonial Gaze in *Gravity's Rainbow*." *Pynchon Notes* 50-51 (2002): 83-96.
- McLuhan, Marshall. *Understanding Media: The Extensions of Man*. New York: McGraw-Hill, 1964.
- McWhorter, Ladelle. *Heidegger and the Earth: Issues in Environmental Philosophy*. Kirksland: Thomas Jefferson University Press, 1992.
- Meadows, Mark Stephen. *I, Avatar: The Culture and Consequences of Having a Second Life*. Indianapolis, Ind: New Riders, 2008.
- Melville, Herman. *Moby-Dick*. London: Collector's Library, 2004.

- Melley, Timothy. *Empire of Conspiracy: The Culture of Paranoia in Postwar America*. Ithaca, N.Y.: Cornell University Press, 2000.
- Mendelson, Edward. "Encyclopedic Narrative: From Dante to Pynchon." *MLN*. 91. 6 (1976): 1267-1275.
- Miller, Laura. "The Best TV Show of All Time: A Classical Masterpiece, Laura Miller Argues for 'The Wire.'" *Salon* (2007).
- Montfort, Nick, and Ian Bogost. *Racing the Beam: The Atari Video Computer System*. Cambridge, Mass: MIT Press, 2009.
- Moore, Thomas. *The Style of Connectedness: Gravity's Rainbow and Thomas Pynchon*. Columbia: University of Missouri Press, 1987.
- Morowski, Philip. *Machine Dreams: Economics Becomes a Cyborg Science*. Cambridge: Cambridge University Press, 2002.
- Morris, William. *News from Nowhere*. Buffalo, NY: Broadview Press, 2002.
- Morrison, Toni. *Unspeakable Things Unspoken: The Afro-American Presence in American Literature, The Tanner Lectures on Human Freedom*. Delivered at the University of Michigan, October 7, 1988.
- . *Playing in the Dark: Whiteness and the Literary Imagination*. Cambridge: Harvard University Press, 1992.
- Mosley, Walter. *Futureland: Nine Stories of an Imminent World*. New York: Warner Books, 2001.
- Murray, Janet Horowitz. *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. New York: Free Press, 1997.
- Myers, Tony. "The Postmodern Imaginary in William Gibson's Neuromancer." *MFS Modern Fiction Studies*. 47. 4 (2001): 887-909.
- Nakamura, Lisa. *Digitizing Race: Visual Cultures of the Internet*. Minneapolis: University of Minnesota Press, 2008.

- National Commission on Terrorist Attacks. *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States*. New York: W. W. Norton & Company, 2004.
- "Network, *n.*" and "Network computer, *n.*" *Oxford English Dictionary*. OED Online. Oxford University Press. Revised September 2007.
- Newman, M. E. J., Albert-László Barabási, and Duncan J. Watts. *The Structure and Dynamics of Networks*. Princeton, N.J.: Princeton University Press, 2006.
- Norberg, Arthur, Judy E. O'Neill, and Kerry J. Freedman. *Transforming Computer Technology: Information Processing for the Pentagon, 1962-1982*. Baltimore: Johns Hopkins University Press, 1996.
- Norris, Pippa, Montague Kern, and Marion Just, eds. "The Lessons of Framing Terrorism." In *Framing Terrorism: The News Media, the Government, and the Public*. New York: Routledge, 2003.
- Obama, Barack. "Transcript: Barack Obama's Inaugural Address." *New York Times* (January 20, 2009).
- . "Obama's Nobel Remarks," *New York Times* (December 10, 2009).
- . "Obama comments on Flight 253 security review: Transcript." Lynn Sweet. *Chicago Sun Times* (January 7, 2010).
- Oil God*. Persuasive Games. 2006. www.shockwave.com/gamelanding/oilgod.jsp
- Olsen, Lance. "Cyberpunk and the Crisis of Postmodernity." In *Fiction 2000: Cyberpunk and the Future of Narrative*. Slusser and Shippey, ed. Athens: U of Georgia P, 1992.
- Omi, Michael and Howard Winant. *Racial Formation in the United States: From the 1960s to the 1990s*. New York: Routledge, 1994.
- Otis, Laura. *Membranes: Metaphors of Invasion in Nineteenth-Century Literature, Science, and Politics*. Medicine and Culture. Baltimore: Johns Hopkins University Press, 1999.

- . *Networking: Communicating with Bodies and Machines in the Nineteenth Century*. Studies in literature and science. Ann Arbor: The University of Michigan Press, 2002.
- Oxford University Press. *OED Online*. Oxford, England: Oxford University Press, 2000. <<http://dictionary.oed.com/entrance.dtl>>.
- Paris, Jeffrey. "Rethinking the End of Modernity: Empire, Hyper-Capitalism, and Cyberpunk Dystopias." *Social Philosophy Today* 21 (2005), 173-189.
- Parikka, Jussi. *Digital Contagions: A Media Archaeology of Computer Viruses*. Digital formations, v. 44. New York: Peter Lang, 2007.
- Piercy, Marge. *He, She and It*. New York: Fawcett Columbine, 1997.
- Pynchon, Thomas. *V*. Philadelphia: Lippincott, 1963.
- . *The Crying of Lot 49*. New York: Harper Collins, 1965.
- . "A Journey into the Mind of Watts." *New York Times Magazine* (June 12, 1966).
- . *Gravity's Rainbow*. New York: Penguin Classics, 1995.
- . *Mason & Dixon*. New York: Henry Holt, 1997.
- Radway, Janice. *A Feeling for Books*. Chapel Hill: The University of North Carolina Press, 1997.
- Ramirez, Victoria. "The Herero in the Harz: Pynchon's Re-Presentation of Race Relations in *Gravity's Rainbow*." In *Images of Africa: Stereotypes and Realities*. Daniel Mengara, ed. Tremonton: Africa World Press, 2001.
- Rankin, Sandy. "The (Not Yet) Utopian Dimension and the Collapse of Cyberpunk in Walter Mosley's *Futureland: Nine Stories of an Imminent World*." In *New Boundaries in Political Science Fiction*. Donald M. Hassler and Clyde Wilcox, eds. Columbia, S.C.: University of South Carolina Press, 2008.
- Ray, Billy, et al. *Breach*. Universal City, CA: Universal Pictures, 2007.
- Reggiani, Aura and Daniele Fabbri, eds. *Network Developments in Economic Spatial Systems: New Perspectives*. Aldershot: Ashgate, 1999.

- Rhodes, Jane. *Framing the Black Panthers: the spectacular rise of a Black power icon*. New York: New Press, 2007.
- Richards, Thomas. *The Imperial Archive: Knowledge and the Fantasy of Empire*. London: Verso, 1993.
- Robin, Corey. *Fear: The History of a Political Idea*. New York: Oxford University Press, 2004.
- Rummel, R.J. *Death by Government*. Edison: Transaction Books, 1994.
- Rumsfeld, Donald. "Defense Department Briefing" (February 12, 2002).
- Saint-Amour, Paul. "War, Optics, Fiction." Presented at *Theories of the Novel Now*, Brown University, Providence, Rhode Island, November 9, 2007.
- Sageman, Marc. *Understanding Terror Networks*. Philadelphia: University of Pennsylvania Press, 2004.
- Sargent, Lyman Tower. "The Three Faces of Utopianism Revisited." *Utopian Studies* 5.1 (1994).
- Schmitt, Carl. *The Concept of the Political*. George Schwab, trans. Chicago: University of Chicago Press, 1932.
- Schmitt, Carl, and G. L. Ulmen. *The Nomos of the Earth in the International Law of the Jus Publicum Europaeum*. New York: Telos Press, 2003.
- Schumpeter, Joseph Alois. *Capitalism, Socialism, and Democracy*. New York: Harper, 1950.
- Second Life*. Linden Lab. 2003-2010.
- September 12th: a toy world*. Newsgaming. Gonzalo Frasca. 2003.
www.newsgaming.com/games/index12.htm
- Shyamalan, M. Night. et al. *The Happening*. Los Angeles, CA: 20th Century Fox, 2008.
- Siegel, Mark Richard. *Pynchon: Creative Paranoia in Gravity's Rainbow*. Port Washington: National University Publications, Kennikat Press, 1978.
- SimEarth: The Living Planet*. Maxis. Will Wright. 1990.

- Simon, David. *The Wire*. New York, N.Y.: HBO Video, 2004-2008.
- . AOL Interview (2007).
<http://www.members.aol.com/TheWireHBO/exclusive.html>.
- . Nick Hornby Interview with David Simon. *The Believer* (August 2007).
- . "Ask *The Wire*: David Simon." <http://boards.hbo.com/topic/Wire-Hbo-Official/Ask-Wire-David/100000825?start=1035&#msg100296266>.
- Simons, Jon. "Postmodern paranoia? Pynchon and Jameson." *Paragraph* 23 (2000): 207-221.
- Singh, Amritjit and Peter Schmidt. *Postcolonial Theory and the United States: Race, Ethnicity, and Literature*. Jackson: University Press of Mississippi, 2000.
- Smith, Barbara Herrnstein. *Scandalous Knowledge: Science, Truth and the Human*. Science and cultural theory. Durham, N.C.: Duke University Press, 2006.
- Stephenson, Neal. *Snow Crash*. New York: Bantam Books, 1992.
- Sterling, Claire. *The Terror Network: The Secret War of International Terrorism*. Reader's Digest Press: 1981.
- Stricker, Frank. *Why America Lost the War on Poverty-- and How to Win It*. Chapel Hill: University of North Carolina Press, 2007.
- Surnow, Joel and Robert Cochran. 24. Fox, 2001-2010.
- Suvin, Darko. *Metamorphoses of Science Fiction: On the Poetics and History of a Literary Genre*. New Haven: Yale University Press, 1979.
- Szondi, Peter. *An Essay on the Tragic*. Stanford, CA: Stanford University Press, 2002.
- Tabbi, Joseph, *Postmodern Sublime: Technology and American Writing from Mailer to Cyberpunk*. Ithaca: Cornell University Press, 1995.
- Talbot, Margaret. "Stealing Life: The Crusaders Behind 'The Wire.'" *The New Yorker* (2007): 150-163.
- Tehrani, Rich. "As We May Communicate." *TMCnet*, January 2000.

- Terranova, Tiziana. *Network Culture: Politics for the Information Age*. London: Pluto Press, 2004.
- Third World Farmer*. Frederik Hermund. 2006 www.3rdworldfarmer.com/links.html
- Thomas, Martin, Bob Moore, and L. J. Butler. *Crises of Empire: Decolonization and Europe's Imperial States, 1918-1975*. London: Hodder Education, 2008.
- Toscano, Alberto and Jeff Kinkle. "Baltimore as World and Representation: Cognitive Mapping and Capitalism in *The Wire*." *Dossier* (2009). <http://dossierjournal.com/read/theory/baltimore-as-world-and-representation-cognitive-mapping-and-capitalism-in-the-wire/>
- Townshend, Charles. *Terrorism: A Very Short Introduction*. Very short introductions, 78. Oxford: Oxford University Press, 2002.
- 24: *The Game*. Sony Computer Entertainment Studio Cambridge. 2006.
- Tucker, Ken. "Urban Legend." *Entertainment Weekly* Issue 705 (April 18, 2003).
- UK Clinical Virology Network Website. 2010. www.clinical-virology.org/
- Ullman, Ellen. *Close to the Machine: Technophilia and Its Discontents : a Memoir*. San Francisco: City Lights Books, 1997.
- United States. *Information Operations Roadmap*. Washington, D.C.: Dept. of Defense, 2003. <<http://hdl.handle.net/1794/2169>>.
- . *Vision for a Net-Centric, Service-Oriented DoD Enterprise*. Department of Defense Global Information Grid Architectural Vision. Version 1.0. Ft. Belvoir: Defense Technical Information Center, 2007. Department of Defense. <<http://handle.dtic.mil/100.2/ADA484389>>.
- United States Commission for Review of FBI Security Programs, *A Review of FBI Security Programs*. Washington, D.C.: Department of Justice, March 31, 2002.
- Vaidhyathan, Siva. *The Anarchist in the Library: How the Clash Between Freedom and Control is Hacking the Real World and Crashing the System*. New York: Basic Books, 2004.

- Valentino, Russell Scott. "From Virtue to Virtual: DeLillo's *Cosmopolis* and the Corruption of the Absent Body." *MFS Modern Fiction Studies*. 53. 1 (2007): 140-162.
- Varela, Francisco J., Evan Thompson, and Eleanor Rosch. *The Embodied Mind: Cognitive Science and Human Experience*. Cambridge, Mass: MIT Press, 1991.
- Varsava, Jerry A. "The 'Saturated Self': Don DeLillo on the Problem of Rogue Capitalism." *Contemporary Literature*. 46. 1 (2005): 78-107.
- Virilio, Paul. *The Virilio Reader*. James Der Derian, ed. Malden: Blackwell Publishers, 1998
- . *Ground Zero*. New York: Verso, 2002.
- Virtual Peace*. Tim Lenoir, et. al. www.virtualpeace.org.
- Wachowski, Andy, Larry Wachowski, et. al. *The Matrix*. Burbank, CA: Warner Bros. Pictures, 2001.
- Wald, Priscilla. *Contagious: Cultures, Carriers, and the Outbreak Narrative*. Durham: Duke University Press, 2008.
- Wallerstein, Immanuel. *World-Systems Analysis: An Introduction*. Durham: Duke University Press, 2004.
- Weintraub, E. Roy, ed. *Toward a History of Game Theory: Annual Supplement to Volume 24 History of Political Economy*. Durham: Duke University Press, 1992.
- Weisenburger, Steven. *A Gravity's Rainbow Companion: Sources and Contexts for Pynchon's Novel*. Athens: University of Georgia Press, 1988.
- Weizman, Eyal. "The Art of War: Deleuze, Guattari, Debord and the Israeli Defense Force." *Frieze* 99 (May 2006).
- Wellman, Barry and Bernie Hogan. "The Immanent Internet." In *Netting Citizens: Exploring Citizenship in the Internet Age*. Johnston McKay, ed. St. Andrews, Scotland: University of St. Andrews Press, 2004.
- Wiener, Norbert. *The Human Use of Human Beings: Cybernetics and Society*. Garden City, New York: Doubleday, 1954.

Wolf, Mark J. P., and Bernard Perron. *The Video Game Theory Reader*. New York: Routledge, 2003.

Wright, Richard. *Native Son*. New York: Harper Perennial, 1940.

Žižek, Slavoj. *Welcome to the Desert of the Real!: Five Essays on September 11 and Related Dates*. London and New York: Verso, 2002.

---. "The Matrix: Or, The Two Sides of Perversion." In *The Matrix and Philosophy: Welcome to the Desert of the Real*. Chicago: Open Court Publishing, 2002.

Biography

Patrick Jagoda was born in 1982 in Bruck an der Mur, Austria, and spent the first five years of his life in Sydney, Australia. After moving to the United States, he grew up in a predominantly Polish neighborhood in Chicago. Later, he graduated from New Trier High School (2000) and earned a B.A. in English and Philosophy from Pomona College in Claremont, California (2004). Patrick completed his doctorate in English with a graduate certificate in Information Science and Information Studies at Duke University in 2010 with the support of the James B. Duke Fellowship and a final year English Department Dissertation Fellowship. His areas of specialization include twentieth and twenty-first century American literature, new media, and critical theory. Related to his new media work, his research and teaching interests have included video game studies, the culture of online synthetic worlds, electronic fiction, and speculative literature. His articles and book reviews have been published or will appear in *Neo-Victorian Studies*, *Exit 9: The Rutgers Journal of Comparative Literature*, and *American Literature*.