

Bugs After the Bomb: Insect Representations in Postatomic American Fiction and Film

by

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DEDICATION

This dissertation is dedicated to my grandparents, Karin and Jess Cassel.

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ABSTRACT

This dissertation engages with critical animal studies, materialist feminism, and American culture to examine how insects and other bug-like creatures embodied cultural anxieties about postatomic life in 20th century North American literature, film, and culture. I argue that insects became a powerful register for expressing fear for the future of an environmentally damaged and increasingly systematized society in the form of insects taking over the planet. I analyze texts by William Burroughs, Philip K. Dick, and Octavia Butler, as well as “big bug” films of the 1950s, and show how these authors and films metaphorize postatomic configurations of “life.” I chart the omnipresent but little analyzed links between narrative form and the insect cosmos using a materialist and posthumanist feminist lens, and argue that explicitly articulated anxieties about insects convey larger concerns about ecological awareness, and language, dehumanization, and xenophobia. My claim is that insectoid figuration can reveal much about how the construction of the category of the human relies upon the abjection of animality through triumphalist exceptionalist views of our own affective capacities.

Introduction

Postatomic Incompanionates

Scientific and social revolutions from the past century and a half, including Darwinism, cognitive ethology, cybernetics, and genetic engineering, have compelled humans to doubt the centrality of their place in the universe and in nature, and encouraged skepticism about absolute truth. The precarious position of the human became an urgent concern with the realization that humans could destroy themselves. In the 1950s, the threat of nuclear war loomed as an ominous possibility, and the apparent degradation of the environment through human practices like increased pesticide use and trash production, intensified apocalyptic images of the world's end. The use and testing of nuclear weapons, and the devastating effects of radioactivity on the environment stirred human fantasies of insects taking over the world in the wake of our auto-genocide. Depictions of intelligent insects proliferated in postwar American narrative, expressing the dwarfed individual agency people felt in the face of these "large governmental, corporate, or social systems" which "appear uncannily to control individual behavior and in which characters seem paranoid," according to Timothy Melley.¹ Agency panic emerges from a fear of compromised free will and autonomy and expresses anxiety about the extent to which an individual is able to control his or her behavior. By evoking the drives and instincts of the so-called mindless insect to give form to agency panic, postwar narratives metaphorize anxieties

¹ Melley, *Empire of Conspiracy*, 8.

about postatomic life. Insectoid figuration stands in for a bevy of postwar anxieties, especially fear of entropy in the wake of severe environmental degradation.

Humans have interacted with insects, as both as embodied, material beings, and as rich symbolic figures, in myriad ways across cultures and historical time periods. My dissertation focuses on how insectoid figuration shifted after 1945 in American literature and film. I argue that these shifts correspond to the expressions of postatomic American anxieties through insectoid figuration, and this dissertation seeks to answer why insects became such a particularly potent register.

Postatomic narrative utilized insectoid figuration in ways that suggest insects are nothing more than mindless machines who represent primal simplicity which we must avoid at all costs. Yet claims to human exceptionalism in relation to animals have been methodically chipped away over the last century by a plethora of scientific experiments, especially in the field of cognitive ethology, and those regarding insects claim a fair share of the labor.² When Karl von Frisch discovered in 1947 that honey bees dance as part of an elaborate symbolic communication to convey information about food sources, the discovery shocked the scientific community, which up to that point believed that humans alone possessed language on this scale of complexity.³ Scientific research on other eusocial insects has proven influential in the computational age because of what it has shown us about swarm intelligence and other emergent behaviors. The processes behind termite mound building, ant foraging patterns, and social wasp nest building have revealed how group decision-making occurs in a bottom-up model of social organization. In

² Insectoid creatures on both sides of the societal behavior spectrum can claim their share of the labor. The eusocial insects, which include ants, bees, termites, and some wasps and caterpillars, are characterized by division of labor, task partitioning, and societal architecture, and have been of particular interest in cybernetics, information processing, and artificial intelligence.

³ Seeley, *Honeybee Democracy*, 9-13.

such a model, individual actions are not centrally coordinated and do not follow a blueprint or prior plan of action; instead, individual actions build upon one another in response to the immediate environment. This process is called stigmergy, and was coined by Pierre-Paul Grassé in his 1959 study of termites (referred to as “white ants” at the time). When termites build with mudballs their actions attract more workers to do the same (positive feedback), resulting in the magnificent architectural mounds for which they are known.⁴ Ants use pheromone trails upon discovery of food to build the most efficient path.⁵ Social media and information networks like Facebook and Wikipedia, public art practices like graffiti and locks of love, even other human activities like patterns of garbage dumping, formation of walking paths and traffic flow operate on the same stigmergic (from Greek *stigma*, “mark, sign,” and *ergon*, “work, action”) plane as social insects.⁶ The actions of one individual leaves traces which others then build upon, eventually manifesting a multiply layered network of signs imprinted in the immediate environment.⁷

The language we use about the insect world also routinely mirrors our divided ideological commitments to what the social world should look like. For instance, there is a long-standing debate in myrmecology between E.O. Wilson and Deborah Gordon over ant sociality: Wilson’s

⁴ Grassé, “La reconstruction du nid et les coordinations inter-individuelles chez *bellicositermes natalensis* et *cubitermes*. sp. la theorie de la stigmergie: essai d’interpretation du comportement des termites constructeurs.”

⁵ Detrain, Deneubourg, and Pasteels, *Information Processing in Insects*, especially “Decision-making in foraging by social insects,” 331-54.

⁶ See Michel de Certeau’s *The Practice of Everyday Life*, especially “Walking in the City” (91-110), and Lachlan MacDowall’s “Graffiti, Street Art and Stigmergy.”

⁷ Stigmergy, indirect communication using biosemiochemical markers, such as the pheromones by which ants trace their elaborate food trails, or the termites their mounds, can be distinguished in two ways as pertains to eusocial insects and their relevance to contemporary artificial life configurations and emergent swarm models. One form, *sematectonic stigmergy*, involves communication which physically changes the surrounding environment: encountering a structure where prior termites have already deposited their mudballs, the next termite adds to the pile, therefore reinforcing a positive feedback loop which encourages further such behavior. Another form of stigmergy which is *sign-based*, can be found in the pheromone trails ants use to alert their brethren to a food source.

ants are a warrior society, a superorganism dedicated to colonizing the world, whereas Gordon's ants are ambassadors of egalitarianism.⁸ Wilson sees a rigid relationship between ant caste and specified behavior function within the nest; Gordon sees their behavior as less fixed, less purposeful, and more random.⁹ Wilson and Gordon's differing formulations on ant sociality are a reminder that gender is at play in science, in that Wilson sees militarism among ants through a gendered male lens and Gordon sees organic cooperation through a feminist-informed perspective.

Solitary insects are figured very differently from eusocial insects in figurative language. Two such examples—the centipede and the praying mantis—will be discussed in Chapter 2 and 3 on William Burroughs and Philip K. Dick. In contrast to eusocial insects like bees or ants, in whom we project the virtue of collective industriousness, solitary insects are often rendered more negatively and through a predatory lens. Why does one fear centipedes but love ladybugs, or wonder at a praying mantis yet retch at a roach? Whereas William Burroughs's figurative centipedes offer a way of thinking about language as envenomating and poisonous precisely by relying on the centipede's almost universal abjectness, Philip K. Dick's *femme fatale* gynoids are modeled on the praying mantis, which offers wonderment and awe, dread and death.

My choice of the phrase “insectoid figuration” to describe the kinds of metaphors and tropes at work in postatomic texts is deliberate. My dissertation does not insist on the semantic and scientific differences between “true insects,” and the much broader and affectively motivated category of “insectoids” creatures or bugs. Instead, I deprioritize technical usage and prioritize the layperson's recognition of insects. The definition of a “proper” insect is itself considerably

⁸ See Charlotte Sleight's *Ant* (2003) for an analysis of this tension (169-178). See also Bert Hölldobler and Edward O. Wilson's *Journey to the Ants* (1998) and Deborah Gordon's *Ants at Work* (1999).

⁹ Sleight, *Ant*, 169-175.

contextual in its historicity. The following definition of “insect” from the Merriam-Webster Collegiate Dictionary emphasizes the multiple layers of the term, which are nontechnical, technical, and figurative.

1a: any of small numerous invertebrate animals (as spiders or centipedes) that are more or less obviously segmented—not used technically. 1b: any of a class (Insecta) of arthropods (as bugs or bees) with well-defined head, thorax, and abdomen, only three pairs of legs, and typically one or two pairs of wings. 2: a trivial or contemptible person.

Insect, from the Latin *insectum*, means to “cut into sections or segments,” and refers to a class of arthropodic creatures which typically have a chitinous exoskeleton, a head, thorax, abdomen, three pairs of jointed legs, compound eyes, and antennae. Insects, and arthropods in general, are routinely associated with unsettling feelings because of their alien morphology and behavior, which is often characterized by way of their multiplicity and movement. In a technical sense, insects are defined by the number of legs they have: a true bug has six legs. Indeed, insect classification has a long and complex history and even today remains a contentious area. While centipedes and spiders may not be considered insects proper, they possess enough small and skittery attributes for the general layperson’s categorical purposes. In a colloquial sense, arthropods like arachnids (eight-legged creatures, such as spiders and ticks) and members of the class Chilopoda (millipedes and centipedes, who have many more) are considered “bugs” as well. When bugs are feared in this further-reaching category for their “creepy” or “crawly” capacity, this is in part because they seem to be everywhere, move too quickly, and have too many parts. Indeed, as Eric Brown has pointed out in the introduction to the edited collection, *Insect Poetics*, “the act of naming insects... creates a problematic disjunction between language and materiality” and “this very anxiety over our inability to organize and categorize motivates a

recuperation of the potency of language.”¹⁰ By relying on the suffix “-oid” to modify insect, I emphasize not only the difficulty of categorization when it comes to naming insects, but the importance that aesthetic form and likeness play in such identifications. Insectoid, then, pertains to any creature, either materially embodied or textually contained, that shares similar morphology, behavior, or attributes in common with insects. I use insectoid to encapsulate all those arthropodic creatures to which one might respond affectively as to an insect.

Likewise, my choice of figuration as an encompassing term for the kinds of discursive strategies I unearth in postwar American narrative is strategic. By figuration, I mean the diverse representational practices which suggest that a form or shape bears a likeness to something else. To figure something is to imagine something, to see in one’s mind a resemblance between two things, a formal likeness through nearness of qualities or attributes. Furthermore, the term figuration also acknowledges the ways in which real entities come to embody concepts, metaphors, similes, and other ideas. I draw from Donna Haraway’s useful formulation of figurations as “simultaneously literal and figurative” in that they are “performative images that can be inhabited” and which “map universes of knowledge, practice, and power.”¹¹ Figuration does not necessarily have to be representational but “must involve at least some kind of displacement that can trouble identifications and certainties.”¹² The various insectoid figurations which I explore throughout this dissertation—the bevy of mutated, big bugs which stomped across the celluloid screen in the 1950s; the centipede as an agent of viral control in William S. Burroughs’s “space age mythology;” the *femme fatale* gynoid modeled on insect mimicry and praying mantises in Philip K. Dick’s postnuclear dystopia; the Oankali, an insectoid alien species

¹⁰ Brown, *Insect Poetics*, xii.

¹¹ Haraway, *Modest_Witness*, 11.

¹² Haraway, *Modest_Witness*, 11.

which seeks genetic trade with humans in Octavia E. Butler’s speculative trilogy—shuttle between the literal and figurative, the material and semiotic, encompass a range of affects and anxieties, and ultimately form a signifying constellation which lays bare shifts in how American social order was conceptualized after the chaos of World War II and in the aftermath of atomic potentiality especially in response to severe environmental degradation.

The segmented morphology of many insects lends itself particularly well to conceptualizing the information-saturated landscape of American postwar life. Steven Shaviro notes that the arthropod body plan might be “especially postmodern,” since they are built “on multiply repeated segments, that can be fused or altered to generate new, differentiated structures.”¹³ Nonetheless, the various figural representations of insectoid creatures which I examine in this dissertation, conveyed through fictional and visual means, articulate shared meanings regarding the cultural changes endured during the American postatomic era. Using diverse examples from literature, film, and photography, this dissertation shows how insectoid figurations are a slippery signifier through which such cultural changes are represented and reflected. I limit the dissertation’s scope to these concerns as represented in texts which are particularly concerned with how American social order operates in the wake of atomic potentiality, but many of the tropes and motifs that I examine have roots that tendrils further back into the annals of science fiction.

There is a long-standing link between insectoid figuration and fear about dehumanization which reaches back earlier into the century and across national borders. The animality of insects resonates with cultural topographies in ways which concern broader thematic aspects like dehumanization, the detrimental effects of technology upon society as well as the individual, and

¹³ Shaviro, *Doom Patrols*, 115.

the relationship of that individual to society writ large. Early twentieth-century dystopic imaginings which figure the insectoid on individual and collective societal scales include E.M. Forster's "The Machine Stops" (1909), Karl Capek's *R.U.R.* (1921), Josef and Karel Capek's *The Insect Play* (1921), Yevgeny Zamyatin's *We* (1921), and Aldous Huxley's *Brave New World* (1932) to name a few. In "The Machine Stops," Forster imagines human society driven underground and reliant upon a giant machine to provide for its needs. Each human lives in an individual cell, and the machine is like a massive beehive. The anthropomorphized insects in *The Insect Play* stand in for human characteristics. We encounter a vain butterfly, a narcissistic dung beetle, and ants, whose increasingly mechanized behavior lead to a militaristic society; the brothers Capek use the insects as a vehicle to comment allegorically on post-World War I Czechoslovakia. Huxley's *Brave New World* responds to the strictures of Fordist society by imagining developments in reproductive technology and psychological manipulation in ways that evoke social insects like bees and ants as mechanized and mindless drones in a totalitarian society. In each of these texts, insectoid creatures serve as vehicles for critiquing the ways that industrialized and totalitarian societies alienate the individual. Insectoid figuration emerges in narratives where individuality and free will are impinged upon because of societal expectations. In what is undoubtedly the most conspicuous example of effectively deployed insectoid figuration, Franz Kafka's *The Metamorphosis* (1915), Gregor Samsa wakes up one day to inexplicably find himself transformed into a human-sized insect and is vitriolically spurned by his family. Gregor's sudden transformation and his parents' intensely negative reaction towards it speak to the centrality of aversive affectivity towards insectoids—insectoid metamorphosis accentuates the unsatisfying, and ultimately dehumanizing, life Gregor endures in a postindustrialist society.

Feminist Theory and Insectoid Figuration

A dissertation concerned with bugs as compelling postatomic tropes might not appear overtly feminist but the representations of difference I examine are greatly informed by feminist theory, which takes such difference as a central concern in unearthing and dismantling systems of oppression.¹⁴ Many of the ways in which we use language about insectoid creatures, either as materially alive beings or as the stuff of metaphors, are suffused with speciesist ideation. A term coined in the 1970s by Richard Ryder, speciesism is the idea that certain kinds of animals should be regarded with discrimination and viewed as appropriate objects for exploitation. In an essay entitled “Experiments on Animals,” Ryder wrote that the “illogicality” of discrimination on the grounds of speciesism may soon come to be regarded with as much suspicion and condemnation as other discriminations such as racism: “If it is accepted as morally wrong to deliberately inflict suffering upon innocent human creatures, then it is only logical to also regard it as wrong to inflict suffering on innocent individuals of other species.”¹⁵ Speciesism enacts the same kind of discrimination towards nonhuman animals based on species membership as other logics of discrimination towards oppressed and subjugated humans based on race, gender, class, and so forth. As an often irrational prejudice which underlies our interactions with animals, speciesism

¹⁴ Feminist responses to animal studies have been unpredictable and widely varied which is constitutive of the endeavors undertaken. Some feminists may perceive a focus on the overlapping structural ways in which animals and women have been oppressed and subjugated as a productive axis of intersectional analysis, while others may scornfully receive such a claim as meaning that animals are somehow “more” victimized than women. One example of noticeable in-fighting among scholars has been over the issue of feminist veganism. On the one hand, veganism is promoted as a sustainable approach to ethical food which does not further exploit nonhuman animals. On the other hand, farmer’s market vegan lifestyles have been critiqued for how raced, classed, and gendered they are, and how little they address the structural inequities of such societal categorizations.

¹⁵ Ryder, “Experiments on Animals,” 81.

is frequently naturalized as an innate component of human-animal relationships. The analogy between race and species which Ryder asserts warrants a few observations. First, it is important to note that Ryder aligns race and species because both have been fairly nebulous classifying schemas which hierarchize living beings mostly according to their appearance of difference vis-à-vis a dominant norm. Secondly, Ryder links racism and speciesism through the similarity of the discriminatory logic at work in both. The alignment of discrimination and oppression faced by humans and animals alike is one observation Ryder wants to make. But more importantly, human speciesism does the crucial work of separating the human animal out from nonhuman animals and then imposing binaristic value-laden hierarchies on the animals—warm-blooded versus cold-blooded, backboned versus spineless. Ironically, the very analogies that Ryder makes between humans who have been discriminated against and oppressed—in this example, through race—and animals treated similarly—is a bone of contention among feminist scholars who see this move as minimizing the importance of those human experiences. But the notion that human concerns should *de facto* take precedence over nonhuman animal concerns is a false hierarchy, and one which feminists should be better able to reckon with, given the foundational importance of intersectionality to much feminist work.

Feminist scholars have foregrounded their interest in animality in explorations of how speciesism intersects with other systems of oppression like racism and sexism. Yet even as productive work has been generated in considering how speciesism intersects with other systems, there still remains an internal contradiction within feminist critiques of speciesism. These critiques maintain an investment in drawing the line before it reaches the so-called “lower” and more “simple” forms of life. Such a move seems to want to preserve the seriousness of the intersectional work underway by only focusing on relevant species, even as what counts as

relevance is up for debate. For example, in her *The Dreaded Comparison: Human and Animal Slavery*, Marjorie Spiegel does not completely dismantle a hierarchy of value between humans and nonhuman animals, but instead redefines the group to include only a few more species to whom we could grant subject status or even personhood. She suggests that “perhaps the line could be drawn after other primates” or at least “so as to separate all mammals from other creatures, for mammals share common attributes which other animals lack.”¹⁶ We may respond to this suggestion by asking to what purpose the line must be drawn at mammals, and whether the common attributes are a prerequisite for being considered subjects worthy of moral consideration. There exists a robust literature detailing the numerous ways in which humans are unique from, and superior to, nonhuman animals, including claims that humans are the only beings that possess language, sentience, consciousness, or even tool-bearing capacities. Human domination over nonhuman animals becomes justifiable, then, through claims about the exceptional capacities of humans in relation to the lack of such capacities in nonhuman animals, and provides the logic which reduces animals to objects upon which human will is inscribed. And yet claims about human uniqueness have slowly eroded as further discoveries of animal capacities have been made. It is clear from Spiegel’s assertion that if clear lines must be drawn, then there is still much productive feminist work yet to be done in thinking about the prerequisites for a nonhuman animal to count as a subject worthy of ethical consideration.

The issue of whether or not liking animals must be constitutive to the field of animal studies has been contentious among feminist animal scholars. In her provocative “Pussy Panic” essay, Susan Fraiman insists that liking animals is imperative to scholarship on animals. She in part responding to the “troubling gender politics” involved in the revisionary history and

¹⁶ Spiegel, *The Dreaded Comparison*, 20.

resultant erasure of important work already underway in ecofeminism for the past several decades in favor of founding father narratives centered on animal rights leaders like Peter Singer, Tom Reagan, and poststructuralist theorists like Jacques Derrida and Cary Wolfe.¹⁷ Ecofeminism, broadly speaking, is invested in an intersectional critique of oppression which is sensitive towards environmental and ecological issues and addresses how speciesism upholds existing structures of power by othering beings like women and animals.¹⁸

Ecofeminists have understandably bristled at the erasure of their scholarship on the environment, theories of nature, and human-animal relationships, even though much of their work has been accused of uncritically reifying dualistic understandings of gender vis-à-vis these categories of knowledge, in part taking gender as essential and natural rather than a performative social construction. In their new anthology, *Ecofeminism: Feminist Intersections with Other Animals and the Earth*, which attempts to reclaim ecofeminism as a viable critical framework, Carol Adams and Lori Gruen defend ecofeminism against claims of essentialism, arguing instead that it dismantles essentialism by addressing the gendered dichotomies at play in social oppression.

Exposing dualistic frameworks operating in oppressive situations did not mean that ecofeminists valorized the non-dominant parts of the dualism nor viewed the characteristics of the non-dominant part as ‘natural.’ In arguing relationally and developing a care tradition in animal ethics, ecofeminists were challenging, not accepting, the essentializing structure of the division between men as rational and women as emotional.¹⁹

¹⁷ Fraiman, “Pussy Panic,” 93.

¹⁸ Though ecofeminism arguably reaches back as far as Rachel Carson’s *Silent Spring* in 1962 or Jane Goodall’s original research with chimpanzees in 1967, the term itself was coined in the 1970s. Early contributions to the field include Rosemary Radford Ruether’s *New Woman, New Earth: Sexist Ideologies and Human Liberation* (1975), Mary Daly’s *Gyn/ecology: The Metaethics of Radical Feminism* (1978), Susan Griffith’s *Women and Nature: The Roaring Inside Her* (1978), and Carolyn Merchant’s *The Death of Nature: Women, Ecology, and the Scientific Revolution* (1989). Other notable contributors to the field include Marti Kheel, Vera Norwood, Lori Gruen, Greta Gaard, Carol Adams, Evelyn Fox Keller, Alice Walker, Lynda Birke, Karen Warren, Sandra Harding, Stacy Alaimo, Starhawk, and Josephine Donovan.

¹⁹ Adams and Gruen, “Groundwork,” in *Ecofeminism*, 30.

Regardless of how ecofeminism came under fire in the midst of mid-90s social constructionist fervor, the importance generally placed on materiality in the field remains important and is often advertised under the banner of material feminism or political ecology.²⁰

Although Fraiman justifiably takes issue with how male-identified scholars “assert [their] nonlover for animals” to bolster the credibility of their scholarship, the claim that liking animals must be constitutive to the field is problematic.²¹ Only certain animals are considered likeable entities about whom we are supposed to care. There are myriad creatures which do not qualify as likeable or lovable, and many of them are insects, arthropods, and other invertebrates. To build a viable animal studies framework upon the prerequisite of an animal’s likeability narrows the field of possibilities in ways that dangerously require animals to live up to human aspirations. How is one to measure the mass death of 150,000 Adélie penguins in one fell swoop against the extinction faced by the Lord Howe Island stick insect (more affectionately called the “tree lobster”)? One species is favored because of its cuteness and is therefore more likely to cultivate the necessary resources, while the necessity of the other is questioned because its alarming size triggers disgust and fear.

In an essay on the productive cross-sections between feminist theory and animal rights, Josephine Donovan exposes the flaws of relying only on natural rights doctrine and utilitarianism to theorize our relationships to animality and notes that feminist theory can orient us towards a “new mode of relationship,” which “unlike the subject-object mode inherent in the scientific epistemology and the rationalist distancing practiced by the male animal rights theorists... recognizes the varieties and differences among the species but does not quantify or rank them

²⁰ The *Material Feminisms* anthology edited by Stacy Alaimo and Susan Hekman, as well as Susan Hekman’s *The Material of Knowledge: Feminist Disclosures* are notable contributions to the field.

²¹ Fraiman, “Pussy Panic,” 101.

hierarchically in a Great Chain of Being.”²² She adds that temptation towards binaristic and dualistic understandings of human-animal relationships endures by raising the issue of making a “choice” between an insect and a human: “Some may persist: suppose one had to choose between a gnat and a human being. It is, in fact, precisely this kind of either/or thinking that is rejected in the epistemology identified by cultural feminism.”²³ Such calculations affect the question of whether or not to accord insectoids a seat at the collective table, and in part pertain to whether or not we perceive them as agents capable of suffering, and therefore countable as agents of moral concern. Though such considerations may seem trivial or excessively narrow in the face of larger and more controversial debates pertaining to humans and other mammals, Donovan’s seemingly absurd “choice” reminds us of the productive work that extending the thresholds of our empathic imagination to nonhuman agents can accomplish, even those that lurk in the abject fringes and shadow corners of our conversations about what it means to be intimate with brethren with whom we might not know how to relate.

From the Companionate to the Incompanionate

The “question of the animal” has been a productive line of inquiry in both literary criticism and feminist theory over the past several decades. Animals have enjoyed the theoretical spotlight in areas as diverse as rights and advocacy issues, evolutionary biology, cognitive ethology, philosophy, and literature. Amidst this flourish of interest in the contours of what animality signifies, there still exists a dearth of critical attention towards insectoid representation which this dissertation seeks to address. Despite the attention paid to animality on all these various fronts, insectoids still remain the animal’s abject Other. By focusing on insectoid representation,

²² Donovan, “Animal Rights and Feminist Theory,” 372.

²³ Donovan, “Animal Rights and Feminist Theory,” 375.

I hope to unearth some tacit assumptions about how humans should encounter animals, since much of the literature addresses mammalian and vertebrate beings. Though insectoids are overall less represented in current scholarship on textual representations of animality, there are a few notable exceptions which I look to as fellow travelers.²⁴

Since insects and other arthropods are conceived of as smaller, “lower,” and more “simple” forms of life, they are thought of as more like machines than animals, lifeless automatons that react to the world with blind instinct rather than agential beings who respond to the world with proclivities and inclinations all their own.²⁵ As cold-blooded invertebrates which more often provoke disgust than delight, insectoids tend to be overlooked within animal studies in favor of warm-blooded beings like monkeys, dogs, and horses, in whom it is easier to perceive

²⁴ See Janelle Schwartz’s *Worm Work: Recasting Romanticism* (2012), Janice Neri’s *The Insect and the Image: Visualizing Nature in Early Modern Europe, 1500-1700* (2011), Jussi Parikka’s *Insect Media: An Archaeology of Animals and Technology* (2010), Eric Brown’s edited volume, *Insect Poetics* (2003), Hugh Raffles’s *Insectopedia* (2010), and Cristopher Hollingsworth’s *The Poetics of the Hive: The Insect Metaphor in Literature* (2001), and Monique Allewaert’s *Cut Ups: Colonial Insectophilia, the Poetics of the Small, and the Continuation of the Work of Enlightenment* (forthcoming). In addition, the Reaktion *Animals* series, which explores the historical and cultural significance of particular kinds of animals, features several insectoid additions, such as Charlotte Sleigh’s *Ant* (2003), Claire Preston’s *Bee* (2005), Adam Dodd’s *Beetle* (2015), Marion Copeland’s *Cockroach* (2003), Steven Connor’s *Fly* (2006), Richard Jones’s *Mosquito* (2012), Matthew Gandy’s *Moth* (2016), Louise M. Pryke’s *Scorpion* (2016), Peter William’s *Snail* (2009), and Katarzyna and Sergiusz Michalski’s *Spider* (2010).

²⁵ Insect as machine is a figurative trope which dominates American cultural discourse about insects, as they are figured as driven by blind instinct rather than imagination. The chasm between instinct and intelligence can be seen in a range of science fiction texts which figure insectoid aliens, such as the praying mantis aliens of Frank Herbert’s *The Green Brain* (1956), Bruce Sterling’s “Swarm” (1982), and Rudy Rucker’s *The Hacker and the Ants* (1994). The dialectic between instinct and intelligence emerges particularly in attempts to account for the impressive architectural feats of insects. Even if insects may be grand architects, the logic goes, they lack imagination and the web, hive, or mound, though infrastructurally impressive, has not been assembled in a singular and bounded mind before actualized according to a cohesive plan in reality. Karl Marx’s famous remark on the spider-as-architect as ultimately confined within instinctual drive further elucidates this point:

A spider conducts operations that resemble those of a weaver, and a bee puts to shame many an architect in the construction of cells. But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in imagination before he erects it in reality. Indeed, Marx’s assertion makes clear that an argument toward consciousness through design which such architectural structures seem to exhibit can be entirely chalked up to utilitarian function.

expression of emotion more “like ours.” Smaller and simpler forms of life are in general passed over in animal studies in favor of mammalian creatures, creatures who possess a backbone.

In order to respond adequately to the dearth this dissertation seeks to address, I draw upon posthumanist theorist Donna Haraway’s influential scholarship at the intersections of feminist theory and animal studies.²⁶ While most of Haraway’s *The Companion Species Manifesto* comprises a meditation on dog-human relationality, both in terms of her individual relationship to her particular dog, Cayenne Pepper and her participation in agility sports training, and in terms of the “whole” animal kind, Haraway also calls for greater attention to what she calls “companion species” who are more than companion animals and necessarily include “such organic beings as rice, bees, tulips, and intestinal flora, all of whom make life for humans what it is—and vice versa.”²⁷ Whereas Haraway focuses on the decidedly fluffier and mammalian companionate dog, I linger within the broader category of species that she offers in order to ask what more inconspicuous, and in some cases, undesirable, forms of life offer to conversations about the significance of animality in everyday human life. Insects and their buggy brethren stretch the limits of our empathic imagination, particularly as pertains to our doubts about their

²⁶ Haraway’s “A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century,” puts forward the figure of the cyborg, a hybrid which seeks pleasure in crossing boundaries by imploding the hierarchical binarization of subject and object, natural and artificial. Haraway claims that the cyborg gives us our ontology and our politics by inverting the Western Edenic myth. She uses this figure, along with others like the OncoMouse™ to call for an alternative form of connection, citizenship, and kinship. The cyborg is not just the kind of human-machine hybrid found in thrillers like the *Terminator* series but rather a political myth borne from the Space Race and the Star Wars. The cyborg encompasses the tired fingers of underpaid third world laborers who craft the “sunshine and light” of first world iPhones and other electronic goods, just as much as it includes the replicants of *Blade Runner* or the Cylons of *Battlestar Galactica*. Haraway’s ideation of the cyborg is particularly useful to my project because it evinces her commitment to analyzing material-semiotic assemblages—that is, something is not *just* literal and objective and concrete, but is always already and simultaneously figurative. At a time when we “are all chimeras, theorized and fabricated hybrids of machine and organism,” as Haraway writes, we could “ironically, [learn] from our fusions with animals and machines how not to be Man, the embodiment of Western logos.”

²⁷ Haraway, *The Companion Species Manifesto*, 15.

ability to relate to us or to the world at all. René Descartes was certain that animals had no souls, and that the sounds of pain and suffering they emitted were not attached to an actual lived experience; instead, the animal body was an automaton, and those sounds were but the loud ticking of a mechanical entity no different than a clock. Descartes recommended that “you should consider that these functions in the machine [animal] naturally proceed from the mere arrangement of its organs, neither more or less than do the movements of a clock, or other automaton, from that of its weights and its wheels.”²⁸ Even as Descartes’s certainty that animals amount to no more than machines has been largely discredited, insects have not necessarily reaped those benefits and are still thought of as quite machine-like in their interactions with the environment, each other, and us. Nonetheless, I argue that insectoid creatures complicate the language used to call for ethical interspecies communication, which insists that we pay penance for the mass genocide of animals in such postindustrial practices as factory farming, pet-keeping, and zoos with calls towards co-becomings, mutual recognition, and significant otherness. The ethical turn applies only with great difficulty to the less attractive actors of the nonhuman cesspool, those parasites, bottom feeders, and ugly mugs whom it would be much easier to exterminate, dismiss, and turn away from. It behooves us to consider the applicability and the limits of relational reclamations of “the animal,” and to notice how many of these reclamations too frequently embrace uncritically positive affect. Furthermore, such reclamations usually only pertain to a few *kinds* of animals (i.e.: love for pets, charismatic megafauna).

²⁸ In a later chapter I will address a scene from Philip K. Dick’s *Do Androids Dream of Electric Sheep?* (1968) in which this Cartesian sentiment is at play. An artificial animal repairman meditates on how even though he knows that the yowls of an artificial cat are not the lived experience of an “authentically alive” animal, he nonetheless has an emotional response which he attempts to squelch out of a desire to become a more rational and Cartesian subject.

What is elided by such implicit identifications which assume mammalian-centric and vertebratemorphic understandings of interspecies relationality?²⁹ What does it mean to call for intimate alliance with, for hospitality, even for empathy, toward the nonhuman creatures we share this world with? Which creatures are occluded in this call, and how is such exclusion justified? Is a backbone a prerequisite for being granted potential moral concern? What kinds of entanglements do we look past, what violences are perpetuated, through such ethical frames? If, as Judith Butler has noted, there are “subjects who are not quite recognizable as subjects, and there are lives that are not quite—or indeed, are never—recognized as life,” what traction do we gain from examining creatures which dwell in the fringe, the abyss, of our constructions of “the animal”?³⁰

My attention to insectoid creatures in postwar American narrative derives from Julie Livingston and Jasbir K. Puar’s introduction of the term “incompanionate” in a special issue of a 2011 *Social Text* on interspecies exchange. In their call for more attention to those “forms of life with which interspecies relating may not be so obvious or comfortable,” they note that this “explicit desire to depart from typically privileged sites and subjects also impels our attention not only to companionate critters but also, significantly, ‘incompanionate’ critters.”³¹ These incompanionates—who are often exterminable, trivial, and unmournable within American

²⁹ My usage of the term “vertebratemorphic” comes from Stephen Asma’s cultural history of natural museums, *Stuffed Animals and Pickled Heads: The Culture of Natural History Museums*. Commenting on how taxonomic classification is rendered in invertebrate displays, Asma notes that “[i]n studies of the morphology of some invertebrates, one can’t help but think of them as simpler, less perfected versions of vertebrates. We know now in the twentieth century that is just anthropomorphic (or vertebratemorphic) thinking. We know now that onward-upward-progress sequence of life from less to more complex is just one small thread of the wider story of life, a story that moves in many directions at once and even runs in place” (132).

³⁰ Butler, *Frames of War*, 4.

³¹ Livingston and Puar, “Interspecies,” 5.

culture—are precisely the beings to whom we should bring careful scrutiny of the stakes of claims for bizarre kinship across species lines.

Feminist possibilities lurk in the incompanionate turn, as I will argue throughout this dissertation. First, incompanionates open up alternative, yet no less complex, understandings of agency, efficacy, and language. Secondly, incompanionates direct attention away from (often mammalian) creatures in whom we invest a primal significance of being in encountering, a phenomenon which Barbara Herrnstein Smith has dubbed “the ontological thrill of the animal.” In other words, the sudden sighting of a deer through the thicket or hawk soaring above may vivify a sense of cosmic being only achieved through such an encounter with rarified, wild animals, yet a similarly sudden encounter with a tick or spider would not catalyze such projective fantasies of identification.³² Third, and most importantly, incompanionates dwell in decidedly different affective registers than are typically evoked by feminist animal scholarship on interspecies relationships. Incompanionates expose what may appear as an uncritically unilateral turn within animality studies by challenging utopic visions of reciprocity and mutuality: it is hard to sympathize with a mosquito or develop a sustainable ethics of care towards the fleas on your dog. In short, incompanionates, a category which includes the insectoid figurations I examine, are a productive locus for examining how the categories of human and animal are invoked, especially in terms of empathy.

³² The “ontological thrill of the animal” is Barbara Herrnstein Smith’s phrase for the moment of intense identification one experiences by witnessing charismatic megafauna in the wild. She explains that it is “the sense of a sudden intensification—quickening or thickening—of being, as experienced, for example, at the sighting of a large bird or animal (hawk, deer, bear, or snake) in the wild.” See Smith’s *Scandalous Knowledge*, 157.

Invertebrate Pain and Suffering

The question of whether or not to accord invertebrates status as suffering agents also depends on who gets to count as a moral and rational agent, and to what ends and means a subject is constituted through rights and interests. Despite findings that suggest that some insects and bugs warrant such attention, they nonetheless still occupy a marginal position in ethical considerations and representations in animal studies. If insects are indeed the uncrossable line, brethren in whom we do not see, nor seek, family resemblance, what is it about them that impels this refusal of consideration?

One key element of animal rights discourse has to do with the matter of *suffering*. Jeremy Bentham's question— not “Can they *reason*?” or “Can they *talk*?”, but rather, “Can they *suffer*?”— resonates strongly today.³³ Peter Singer in his now foundational animal rights text, *Animal Liberation* (1975), explains that the nexus of exploitation and extermination which set the conditions of the “tyranny of the human over the nonhuman” centers on our preconceptions of what counts as “life” and who gets to adjudicate it as such.³⁴ Subsequently, feminist theorists from Carol Adams to Donna Haraway have concerned themselves with the ways in which such tyranny is justified, rationalized, and otherwise excused because of the dominant narrative of human exceptionalism.

The ability to experience pain is a primary way in which animals are identified or not as worthy of moral concern. Invertebrates are commonly thought of as not being able to experience pain, and thus their capacity to suffer is questioned. Insects, in particular, are cast as having no

³³ Bentham, *An Introduction to the Principles of Morals and Legislation*, 1781.

³⁴ “This book is about the tyranny of human over nonhuman animals. This tyranny has caused and today is still causing an amount of pain and suffering that can only be compared with that which resulted from the centuries of tyranny by white humans over black humans.” Singer, *Animal Liberation*, i.

sensations other than blind, mechanical drives.³⁵ Yet many studies have shown that invertebrates and insects *do* exhibit features of being able to experience pain, or, at least, “have the capacity to detect and respond to noxious or aversive stimuli.”³⁶ Even though invertebrates are capable of exhibiting “nociceptive responses analogous to those shown by vertebrates” there still remains the question of whether or not these stimuli are registered or experienced.³⁷ Some argue that the simplicity of invertebrate nervous systems can be taken as an indicator that while these stimuli are registered, they are not experienced in the subjective way pain is experienced by higher order, mammalian creatures. Recently philosophers like Peter Carruthers have claimed invertebrates like bees and jumping spiders as “objects of sympathy and moral concern” because they share a belief-desire psychology similar to our own, have plans that can be thwarted, and desires that can be frustrated.³⁸ Though insects do not make direct claims on us, it is not wrong to take into account their suffering. The so-called “challenge for ethical theory” that Carruthers proposes turns on this distinction between appropriate and required: his examples suggest that we are under no obligation, moral or otherwise, towards invertebrates: A small child pulling legs off an ant should be scolded, he argues, not because of the suffering of the ant, but because this might cultivate bad personality characteristics for the child. Even though invertebrates are agents capable of being done wrong by us, Carruthers maintains that we must keep these wrongs in perspective.

Most of us believe, in fact, that insects and spiders make no direct claims on our sympathy or moral concerns. We think that we are under no obligation, when walking down the street, to avoid stepping on any ants. We likewise feel no compunction about breaking

³⁵ For more on the issue of pain in invertebrates, see Robert W. Elwood’s “Pain and Suffering in Invertebrates?,” Jane A. Smith’s “A Question of Pain in Invertebrates,” C.H. Eisemann et. al, in “Do Insects Feel Pain?—A Biological Review,” V.B. Wigglesworth’s “Do Insects Feel Pain?,” and Bjorn Brembs’s “Operant Conditioning in Invertebrates.”

³⁶ Smith, “A Question of Pain in Invertebrates,” 26.

³⁷ Smith, “A Question of Pain in Invertebrates,” 27.

³⁸ Carruthers, “Invertebrate Minds,” 292.

through spider webs when walking in the woods. But this is not because we believe that our own interests, in such circumstances, are more important than the interests of the invertebrates in question, since we could quite easily adjust many aspects of our lives to avoid causing any damage to the latter. It is rather because, we believe, the interests of invertebrates do not generate any direct moral requirement for us to take account of.³⁹

Carruthers shifts the lens of moral responsibility to include scale in this passage. The interests of invertebrates do not make “any direct moral requirement” which beseeches direct or indirect action on our part. The notion of obligation is key to understanding Carruthers’s claim—even if we grant that these beings lead lives that have interests, or are capable of desires all their own, they nonetheless live lives on a miniature scale which we cannot help but intrude upon because of our own morphology and environments. If obligation is posited according to a transposition onto the Great Chain of Being, as it seems Carruthers might be doing here, what kinds of assumptions do we make about the value of life, and might we be falling into the trap of masculinist science which espouses a supposedly objective view onto reality and our interactions in it?

We can witness the deep roots of such an attitude in a contemporary meme in which the humor depends upon an undercutting of the affective extremes such creatures provoke. Both images below are part of the “Misunderstood House Spider” meme. An internet meme is any kind of humorous image, video, or text, that is copied extensively (often with slight variation) and spread rapidly by Internet users. A term originally coined by Richard Dawkins in *The Selfish Gene*, and originally meaning a “unit of cultural transmission, or a unit of imitation” that evolves as it passes from human to human through various forms of communication, the term now

³⁹ Carruthers, “Invertebrate Minds,” 294.



Figure 1.1: “Misunderstood Spider” meme on *Funniest Memes*. May 18, 2014.



Figure 1.2: “Misunderstood Spider” meme on *Quick Meme*.

applies to a broader type of cultural transmission.⁴⁰ Memes, then, are inherently ideological in that they convey dominant beliefs, judgments, and values about whatever the image contains.

The captions of this particular meme typically take the perspective of a benevolent, anthropomorphized spider that tries to do good for humans and is rewarded for his efforts with violence. Empathy, or any kind of positive affect, is typically not reserved for arachnids, but these images capitalize on the hugeness of the jumping spider’s eyes to render the image compassion-inducing. Especially if we concede that “liking” animals is the first step towards higher-level affective responses like empathy and compassion, and that the feeling that the animal is “looking back” is one of the triggers for such responses, the fact that the jumping spider’s eyes seem to stare back at the viewer of the image creates space for such responses. In Figure 1, the expressivity of the jumping spider’s face alongside the syntactically juvenile caption play on the irony that compassion-inducing cuteness is not typically within the arachnid wheelhouse. The jumping spider appears to possess a mouth pursed in anxious await of acknowledgment, and wide eyes which, through the magic projection of anthropomorphism,

⁴⁰ Dawkins, *The Selfish Gene*, 192.

seem imploring and almost desperate, as it clutches a fly offering. Figure 2 features another macro photograph of a jumping spider perched atop a leaf. Both jumping spider images reveal common cultural attitudes and perceptions towards insects (in this case, their cousins, the arachnids). Both macroimages present the spider such that its eyes are accentuated as it gazes directly into the camera, and play upon the surprise that the spider is often a helpful houseguest rather than a pest.

Aversive Affect and the Language of Disgust

Not all nonhuman animals are granted equal representation because of instituted hierarchies of being. To be a candidate for compelling literary representation, it seems an animal must possess certain qualifications, one of the most primary among them the promise of a gaze that looks back and reflects something to us about our own humanness. In other words, an animal must qualify as a potential candidate for anthropomorphism, a point which Lorraine Daston and Gregg Mitman have put a different way: “Before either animal individuality or subjectivity can be imagined, an animal must be singled out as a promising prospect for anthropomorphism.”⁴¹

Language is a key axis on which the abyss between humans and nonhuman animals is charted. Figurative language especially can be used to make this difference pronounced. For instance, Carol Adams observes that metaphors and similes can use animals to dehumanize humans since “[w]hen we talk about the victimization of humans we use animal metaphors derived from animal sacrifice and animal experimentation: someone is a scapegoat or a guinea pig.”⁴² Such language holds true in regards to bugs as well: someone who is a “worm” or a “cockroach” is contemptible; a “social butterfly” flits gregariously from person to person as

⁴¹ Daston and Mittman, *Thinking with Animals*, x.

⁴² Adams, *The Sexual Politics of Meat*, 65.

though interpersonal interaction is the nectar of life; and “slugs” are lazy and slow-moving. It is not just that speciesism repeats and reinscribes a value-laden hierarchy of being—hierarchy also grounds representation.

One reason why human affect towards invertebrates, and more particularly, insectoid creatures, matters is because it pertains to ecological awareness and wildlife conservation.

Stephen Kellert sharpens this point.

The conservation of invertebrates will necessitate a far greater understanding of why we so consistently react with hostility and antagonism toward these organisms, particularly insects and spiders. To reverse the current trend toward the increasing impoverishment of the planet’s biological diversity, we will need to acquire a more appreciative attitude toward the biological matrix of so-called ‘lower’ life forms represented by the invertebrates.⁴³

These foreign scales of existence threaten to confound the notion of a stable and impenetrable human subject bounded by skin, and are thus met with aversive affect on our part.

This dissertation does not particularly focus on affects on the positive spectrum, like joy and delight. Figures like butterflies or ladybugs, since they are typically instantiated within positively inflected affective paradigms, are not prioritized. Instead, I focus on the aversive affects, like fear, disgust, and horror, which stem from encounters with particular types of insects. I take inspiration from the theoretical paradigm put forward by Heather Love and Sianne Ngai—that is, the productiveness of “feeling backwards” and “ugly feelings” to suggest that there is something politically useful in aversive affects which should not automatically be eschewed in favor of relentless happiness.⁴⁴ Each chapter turns on a particular type of aversive affect drawn out by a particular type of insectoid creature. In using insectoid metaphors to enter

⁴³ Kellert, “Values and Perceptions of Invertebrates,” 852.

⁴⁴ See Heather Love’s *Feeling Backward: Loss and the Politics of Queer History* and Sianne Ngai’s *Ugly Feelings*.

into this wider conversation, I am of course only pulling from a very specific cultural register—Anglophone and Western, mostly American—and from a very particular pool of aversive affects (I do not discuss, for example, rage, jealousy, or anger). I say this here because it is important to note that attitudes towards virtually anything are culturally specific and historically contextual, and thus not essential, universal, or natural by any means. For example, Japanese attitudes towards insects, but particularly beetles, are characterized by feverish appreciation.⁴⁵

Summary of Chapters

In my first chapter, “‘The Beasts Shall Reign Over the Earth’: Feminized Insect Invasion in the Big Bug Films and Insect-Human Hybrid Films of the 1950s,” I focus on a cluster of films from the 1950s featuring big bugs and human-insect hybrids. I argue that the oversized menacing bugs and insect-humans depicted in these films exhibited a larger paranoia over not just atomic anxieties but shifting gender roles and the proper deployment of scientific knowledge and military force to eradicate national threats. Focusing on films such as *Them!*, *The Deadly Mantis*, *The Beginning of the End*, *The Wasp Woman*, and *The Fly*, I suggest that insect invasion became a compellingly appropriate form for articulating these anxieties because, as creatures considered “lower” and more “simple” but perhaps more successful in their survival strategies, the eradication of giant insects on screen allowed for feelings of vindication and triumph at having bodily and national borders secured and safe.

Whereas the films I analyze in the first chapter largely contend with cultural fears and anxieties as embodied in feminized insect invasion, my second chapter turns towards the central role that disgust plays in the construction of the category of the human. In “Control Centipedes:

⁴⁵ See *Beetle Queen Conquers Tokyo* (2010).

William Burroughs's Entomological Horror," I argue that Beat Generation author William Burroughs selected the centipede as an emblematic insect whose disgusting attributes perfectly embodied the detrimental effects of living in a society of control. Burroughs believed that language was an integral means by which we control others and are controlled, and positioned the centipede as a central, and always abject and aversive, figure in what he called his "mythology for the space age." I show that Burroughs's continual use of centipede figuration frames insectoid alterity as a negative axis, a shadow mirror, in which humanity gazes upon its ugliest potential.

Whereas the 1950s films and Burroughs's cut-up experiments convey a tone of fear, horror, and disgust towards the insect form, the author whose work I examine in my next chapter approaches insects from a more compassionate, although at times paradoxical, position. In "Inconspicuous Life and Empathic Identification in Philip K. Dick's *Do Androids Dream of Electric Sheep?*," I address science fiction author Philip K. Dick's use of insectoid figuration to caution against the dangers of a life without empathy. Dick instantiated these cautions in a conception of the android as a "reflex machine," and defined empathy as the core of what it means to be human. I argue that Dick's psychological metaphor of the android as reflex machine is deeply influenced by the insectoid in two important ways. First, the metaphor is grounded in patterns of mimicry and predation linked explicitly to insect behavior, a conceptual connection as yet unexamined in Dick scholarship. Second, although Dick champions humans (possessed of the ability to feel) over androids (rendered insect-like for their inability to feel), he paradoxically drives this point home by frequently centering on narrative moments involving empathy, or lack thereof, towards insects. I draw primarily from Dick's 1968 novel, *Do Androids Dream of Electric Sheep?*, which offers a postnuclear dystopia wherein electric animals, sentient androids,

and mutated humans all coexist in a world culturally mediated by nostalgic mourning for extinct animals and technologically mediated by empathy boxes and mood organs.

I conclude this dissertation by considering a speculative future in which the kinds of aversive affects explored in the first three chapters is ambivalently embraced instead of spurned, transformed into a politically productive tool instead of used as a litmus test for measuring a predetermined humanity. In “Intimate Encounter with Insectoid Aliens in Octavia E. Butler’s “Bloodchild” and *Lilith’s Brood* Trilogy,” I examine Octavia E. Butler’s incorporation of insectoid figuration into her description of the alien Tlic and Oankali of her short story “Bloodchild” and her influential *Lilith’s Brood* trilogy. These alien Others possess lived environments which include multi-sensory, consensus-based decision-making processes, interspecies kinship structures that mimic social insect formation, and a “third gender” which reflects certain insect mating practices as well. By drawing on the sensorium of the insect cosmos, Butler moves beyond the humanoid to challenge binaristic thinking about radical Otherness and what constitutes difference.

I conclude by considering whether or not the proliferation of insectoid imagery still at work not just in speculative fiction but in contemporary culture can still be considered postatomic, or if there is a better way to understand this proliferation. I look towards three more recent examples of how insects serve as protagonists and as symbolic registers with this question in mind. While insects may still serve as compelling registers for understanding difference and Others, the kinds of alien Others North America frets might compromise national borders take the form of immigrants or terrorists instead. Much like how big bugs in 1950s film came to embody a certain kind of terror at having national borders compromised, the bug-like “prawns” in *District 9* offer a different kind of Other whose subjectivity may be just as opaque but which

offers valences of how to understand xenophobia. Recent animated children's films like *Antz*, *A Bug's Life*, and *Bee Movie*, to name just a few, offer social insects as miniature citizens caught in the cogs of corporatized work culture, and discontented with their insignificant drone role. And finally, I consider the role of insectoid figuration in more recent art, particularly Catherine Chalmers's *American Cockroach* photography series and Wangechi Mutu's hybrid-species collages. In the "Execution" section of Chalmers's series, she positions the bodies of dead cockroaches to evoke the electric chair, lynching, and Nazi gas chambers. Chalmers's manipulation of not just species, but size and silhouette unsettles the viewer by denouncing violent execution of human beings while simultaneously creating empathy with a particularized cockroach. Chalmers's series utilizes insects to figure decimated humanity, whereas Mutu's collages, which have been called "firmly Afrofuturist," thus extending from the tradition that Butler draws from, claim insect form as a productive component in her fragmented collages, which meld women, machines, and animals (often insects). Mutu's hybrid-species collages salvage what is typically thought of as abject as a tool for coming to terms with fragmented identity and feminine vulnerability.

Chapter One

“The Beasts Shall Reign Over the Earth:”

Feminized Insect Invasion in the Big Bug Films and Insect-Human Hybrid Films of the 1950s

From our contemporary perspective, such fears seem so familiar as to be almost trite, but it is important to recognize how *quickly* Americans began to articulate them. Years before the world’s nuclear arsenals made such a holocaust likely or even possible, the prospect of global annihilation already filled the national consciousness. This awareness and the bone-deep fear it engendered are the fundamental psychological realities underlying the broader intellectual and cultural responses of this period.

~ Paul Boyer, *By the Bomb’s Early Light*¹

The 1950s were a period characterized by anxiety and fear over the consequences of atomic technology, radioactivity, and fallout. The atomic bombs dropped on Hiroshima and Nagasaki in August 1945 raised questions about the ethics of such large-scale weapons, and the loss of life was staggering. The so-called Little Boy bomb killed between 90,000 and 160,000 people; Fat Man killed between 39,000 and 80,000. Earlier in 1945, the United States conducted a series of atomic tests at the Trinity Site near Alamogordo, New Mexico, and at the Bikini Atoll in the Marshall Islands.² The tests took place on land and underwater, and pumped substantial amounts of radioactivity into the environment. American citizens realized the effects of radiation from

¹ Boyer, *By the Bomb’s Early Light*, 15.

² A total of 23 nuclear devices were detonated at seven test sites in and around the Bikini Atoll from 1945-1958. I am most concerned with detonations executed during Operation Crossroads (Test Able, Test Baker, and the cancelled Test Charlie) since they were precursors to the Hiroshima and Nagasaki bombings. Test Able was conducted March 1, 1945, and Test Baker was exploded underwater July 25, 1945.

atomic explosions by reading and hearing about fallout from these tests: when Test Baker was exploded underwater, Japanese fishermen onboard the Lucky Dragon, a boat in the vicinity, suffered radiation exposure and most died relatively soon after the detonation. The devastations of nuclear technology quickly took form in the imagination of American citizens after these tests. It was the atomic tests, rather than the actual bombings of Little Boy and Fat Man, “that first brought the issue of radioactivity compellingly to the nation’s consciousness,” according to Paul Boyer.³

The threat of annihilation loomed heavy over the cultural ethos. Imagery of the bomb began to proliferate not just in literal terms but in less direct but no less emphatic registers. Editorials that came out directly after the succession of detonations varied drastically in tone—whereas some were apocalyptic and despairing, others conveyed hopefulness. Four days after Japanese surrender, renowned editorialist Norman Cousins published a piece in which he articulated deep apprehension over the social and political ramifications of atomic technology.

Whatever elation there is in the world today is severely tempered by... a primitive fear, the fear of the unknown, the fear of forces man can neither channel nor comprehend. This fear is not new; in its classical form it is the fear of irrational death. But overnight it has become intensified, magnified. It has burst out of the subconscious and into the conscious, filling the mind with primordial apprehensions.⁴

Drawing on apocalyptic language to accentuate the dark shadow of “primitive fear” and “primordial apprehension” impressed upon the national consciousness by the use of atomic technology on human beings, Cousins paradoxically conjures natural forces to articulate the anxieties and fears brought about by a very cultural phenomenon.

Among the myriad expressions of such anxieties and fears, none are more vivid than cinematic representations, which pull from a rich cultural cache of archetypes sometimes literal

³ Boyer, *By the Bomb’s Early Light*, 90.

⁴ Cousins, “Modern Man Is Obsolete,” *Saturday Review of Literature*, August 18, 1945, 5.

but more often than not figurative. Cinema is particularly adept at manifesting subconscious anxieties into conscious representations, and fills the mind's eye with visual regalia for such latent anxieties. Though images of the bomb and atomic anxiety proliferated quite literally in cinematic representations, it is more surprising that the need to imagine and identify the unknown would take the form of insect invasion.

Ants were a particularly salient insect species onto which atomic anxieties were projected. Humans and ants are the only two species that share war in common, Cousins argues in his postwar editorial on how atomic technology has rendered modern man obsolete.

It is a curious phenomenon of nature that only two species practise the art of war— men and ants, both of which, ironically, maintain complex social organizations. This does not mean that only men and ants engage in the murder of their own kind. Many animals of the same species kill each other, but only men and ants have practised the science of organized destruction, employing their massed numbers in violent combat and relying on strategy and tactics to meet developing situations or to capitalize on the weaknesses in the strategy and tactics of the other side.⁵

The evocation of the complex societal structures which allow ants to seek war against others of their “kind” is meant here to damn atomic technology and its ill effects on humanity. While ants may have warmongering written deep into the instinct of their species identity, as Cousins so believes, we humans may be able to resist such instincts in ourselves and behave in more ethical ways. The narrative that Cousins crafts about “organized destruction” as a commonality between ants and humans reveals a fear about humans moving down the evolutionary ladder. Rendering commonalities between ants and humans through the frame of “organized destruction,” Cousins crafts a narrative of humans being capable of transcending our base and primal urges, urges relegated to forms of life driven by instinct.

⁵ Cousins, “Modern Man Is Obsolete,” *Saturday Review of Literature*, August 18, 1945, 5.

By contrast, in another postwar editorial, equally as despondent over the long-term effects of nuclear technology, military analyst Hanson W. Baldwin also turns to ants for a comforting solution, since their social problems mirror our own and yet they thrive.

Ants have lived on this planet for 50 times as many millions of years as man. In all that time they have not committed race suicide as they have not abolished warfare either. Their nations rise and fall and never wholly emerge. Constructing beautiful urban palaces and galleries, many ants have long lived underground in entire satisfaction.⁶

In his attempt to describe the effects rendered by atomic technology, Baldwin imagines ant society as a comforting model for our own survival. “Ants and mythology both reassure us,” he insists, “in awe before the harnessed infinite.”⁷ As war-farers, nation-builders, and architects, ants have flourished exponentially longer than humans, having found balance in this triad of society-building which has not brought about total annihilation. Though ants exact war on one another, they have not gone so far as to “commit race suicide.” Though ants build nations, these never quite “wholly emerge” as totalizing empires. And the underground networks ants forge provide a blueprint for our own architectural resiliency, for how *we* might live in “entire satisfaction” if forced underground by fallout. Baldwin unwittingly draws upon and reverses the dystopic thrust of a robust and vital legacy of subterranean fiction.⁸

Ants are often valorized as industrious workers who diligently carry out their ascribed role within the larger colony, and their underground burrows are admired as amazing feats of architectural endurance. Ants and other insects figure survival but also threat to survival, as was the case with the paranoia and fear which accompanied Cold War anxieties over Communist

⁶ Baldwin, “The Atomic Age: That Flash Showed Where Man’s Real Problems Are: Not Under the Bed but in the Cellar,” *Life*, August 20, 1945, 32.

⁷ Baldwin, “The Atomic Age: That Flash Showed Where Man’s Real Problems Are: Not Under the Bed but in the Cellar,” *Life*, August 20, 1945, 32.

⁸ One such example of subterranean fiction which warrants mention here is E.M. Forster’s “The Machine Stops” (1909), which depicts human civilization living underground in vast ant-like colonies, only connected to one another by a kind of proto-Internet.

factions and invasions. In contrast to the ant's industriousness, the termite is marked by its destructiveness: though termites also build impressive mounds, it is the destruction to our own abodes that we prioritize. During the 1947 House Committee on Un-American Activities (HUAC) hearings on Communist activity in Hollywood, “friendly” witness Jack Warner of Warner Brothers denounced American communists as “ideological termites” which must be exterminated.⁹ Warner imagines American social order as a kind of home whose foundation is being destroyed by an outside pest which must be eradicated.¹⁰ Communists as ideological termites were again evoked by the evangelist Billy Graham when he opened a 1952 session of the U.S. Senate with a prayer by warning against the “barbarians beating at our gates from without and the moral *termites* from within (emphasis original).”¹¹ Political subversion during the Cold War was imagined as a contaminating force that infected from within, or, as Robert Dean puts it, “an implacable, expansionist, militarily threatening enemy” which promised a “conspiratorial, protean invasion of the boundaries of state and society, undermining national strength from within.”¹² Jack Warner’s claim during the HUAC hearings that American Communists are termites which burrow into the foundation of American architecture clarifies how the insectoid operates as a fungible depository for the sense that American values are

⁹ “Ideological termites have burrowed into many American industries, organizations, and societies. Wherever they may be, I say let us dig them out and get rid of them. My brothers and I will be happy to subscribe generously to a pest-removal fund. We are willing to establish such a fund to ship to Russia the people who don’t like our American system of government and prefer the communistic system to ours.”

¹⁰ The purpose of the hearings was to identify subversives sneaking Communist propaganda into Hollywood films. Jack Warner, the studio head of Warner Brothers, was called as one of three “friendly” witnesses to comment on whether or not he thought specific wartime films like *Mission to Moscow* (1943) and *Song of Russia* (1944) glorified Stalin. As a result of the 1947 hearings, ten screenwriters and directors who refused to cooperate with the Committee were cited for contempt and blacklisted.

¹¹ Biskind, *Seeing is Believing*, 106.

¹² Dean, *Imperial Brotherhood*, 67.

undermined, infested, and *invaded*, by a destructive force, be it Communism or the devastating consequences of atomic technology.

The aftermath of the HUAC hearings necessitated delicacy on Hollywood's part. Any critical stance towards nuclear technology or favorable stance towards Communism was viewed as anti-American, so critiques on any level had to be masked, metaphorized, or rendered figurative, for fear of governmental backlash. Thus, Hollywood cinema became a particularly rich locus for symbolic figurations of the bomb.

Hollywood films represented nuclear anxieties in a rapidly produced succession of sensational monster films, beginning roughly in 1953 and tapering off in 1959. *The Beast from 20,000 Fathoms* (1953), which is based on the 1951 Ray Bradbury short story "The Foghorn," features a dinosaur awoken from primeval slumber by nuclear testing to wreak havoc upon New York City.¹³ A radioactive octopus graces the screen in *It Came from Beneath the Sea* (1955); it must leave the ocean depths to feed on humans when its regular food supply is decimated by underwater atomic bomb tests. *The Monster That Challenged the World* (1957) features giant snails affected by radiation. These films and others manifest the cultural zeitgeist of the 1950s in representations of mutated monsters that threatened the sanctity of American life and borders. Anxieties over atomic technology and the lasting effects of nuclear bombs on both humans and the environment came to be embodied in nonhuman forms that could only be vanquished by the combined forces of military personnel and scientists. A specialized subgenre of mutated monster films contended particularly with oversized insectoid menaces. Beginning with *Them!* in 1954, and continuing with movies like *Tarantula* (1955), *The Black Scorpion* (1957), *Beginning of the*

¹³ The success of *The Beast from 20,000 Fathoms* inspired the original *Godzilla* the following year, which, though not a Hollywood-produced film, warrants mention here because *Godzilla* is yet another example of a monstrous beast borne of atomic testing.

End (1957), *The Deadly Mantis* (1957), and *Earth versus the Spider* (1958), the fears of the era loomed large in enormous creepy-crawlies.¹⁴ Another subgenre attended to human-insect hybrids on a smaller scale, and included *Mesa of Lost Women* (1953), *The Fly* (1958), and *The Wasp Woman* (1959).

I argue in this chapter that insectoid figuration in both sets of films—those concerning oversized menaces and those concerning insect-human hybrids on a smaller scale—registers anxieties not only about atomic technology but about shifting gender roles and does so through projection of those anxieties onto giant bugs. I focus my analysis on films in which the triadic tension between insectoid figuration, atomic anxieties, and representation of shifting societal roles in 1950s America take the form of aligning bugs and women.

Many scholars have offered their views on how film absorbed the cultural shock of the bomb in genres including, but not limited to, science fiction.¹⁵ Susan Sontag persuasively argues that irradiated monsters were a metaphor for anxieties about nuclear testing and its consequences, yet she denigrates the metaphorical work these monsters perform in service of bomb anxieties as “above all the emblem of an *inadequate response*,” and a mere “sampling, stripped of sophistication, of the inadequacy of most people’s responses to the unassimilable terrors.”¹⁶ More concerned with charting genre conventions at their most clichéd, Sontag

¹⁴ For an overview of insects in film, see May R. Berenbaum and Richard J. Leskosky’s “Insects in Movies,” in *Encyclopedia of Insects*; Richard J. Leskosky’s “Size Matters: Big Bugs on the Big Screen,” in *Insect Poetics*; James Mertin’s “Arthropods on the Screen,” in *Bulletin of the Entomological Society of America*.

¹⁵ See Joshua David Bellin’s *Framing Monsters: Fantasy Film and Social Alienation*; Peter Biskind’s *Seeing Is Believing: How Hollywood Taught Us to Stop Worrying and Love the Bomb*; Joyce A. Evans’ *Celluloid Mushroom Clouds: Hollywood and the Atomic Bomb*; Toni A. Perrine’s *Film and the Nuclear Age: Representing Cultural Anxiety*; Jerome Franklin Shapiro’s *Atomic Bomb Cinema: The Apocalyptic Imagination on Film*; Vivian Sobchack’s *Screening Space: The American Science Fiction Film*; Robert Torry’s “Apocalypse Then: Benefits of the Bomb in Fifties Science Fiction Films;” and Bill Warren’s *Keep Watching the Skies!: American Science Fiction Movies of the Fifties*.

¹⁶ Sontag, “The Imagination of Disaster,” 224. Emphasis original.

overlooks the idiosyncrasies which suffuse such films. The trauma unleashed by the possibility of atomic annihilation is, for Sontag, “psychologically insupportable,” and perhaps not as easily articulated in explicit terms because the idea of mass extinction is too much to bear; instead, creatures like the big ants of *Them!* or the oversized arachnids in *Tarantula* and *Earth versus the Spider* become “a fantasy target for righteous bellicosity to discharge itself, and for the aesthetic enjoyment of suffering and disaster.”¹⁷ The selection of invertebrate and arthropodic creatures as projective targets is telling as they are much less likely to be thought of as worthy of ethical consideration.¹⁸ There is an undeniable pleasure to be derived from looking at beings excluded from the human category because they provide a sense of human exceptionalism and superiority. Monstrousness is grotesque and abject, and offers an abstract target for the titillated and horrified gaze, a target towards which one might not feel accountable in terms of sympathy or compassion.

Sensational monster films like *King Kong*, in which the monster has mutated to enormous proportions, were popular movie-going fare, but the question I take up here pertains particularly to the invertebrate, arthropodic, and otherwise insectoid creatures that flourished in cinema from 1954 to 1959. Though there is an abundant scholarship both on atomic bomb cinema and on the presence of big bugs on screen, there is a curious lack of feminist scholarship on the ways in which atomic bombs and bugs reflect and inform 1950s gender dynamics through the human relationships depicted on screen and among the bugs themselves.¹⁹ Anxiety about “the

¹⁷ Sontag, “Imagination of Disaster,” 215.

¹⁸ In contrast to *King Kong*, one of the few higher-order mammals to grace the postatomic screen, whose expressive gaze challenges such abstracted projection and eradication.

¹⁹ There are a few examples to be noted, though, including Bonnie Noonan’s *Women Scientists in Fifties Science Fiction Films*; Susan A. George’s *Gendering Science Fiction Films*; Robin Roberts’s *A New Species: Gender and Science in Science Fiction*; and several chapters of Cynthia Hendershot’s *Paranoia, the Bomb, and 1950s Science Fiction Films*.

preservation of the social order” suffuses 1950s film according to Vivian Sobchack.²⁰ While big bug films certainly contain many of the clichés Sontag critiques as representationally inadequate, they also offer idiosyncratic storylines which reveal anxieties about women's increasing visibility in the workplace and about the relationship between science, the government, and the military. My readings of big bug films emphasizes the importance of these storylines and how they affect human and insect characters alike.

Before moving into my analysis of big bug films, a few points regarding classification should be clarified. My identification of what counts as a “big bug” is more in accordance with popular perception than with entomological classifications. Nothing an entomologist would classify as a “true bug” in fact graces the 1950s screen. A “true bug” belongs to the order Hemiptera and has specialized sucking mouthparts: cicadas and leafhoppers are true bugs. When asked to conjure the image of an archetypal bug, many of us would turn towards more familiar examples, like ants, butterflies, or flies, and while they are all insects, they are not bugs in the technical sense. Ants and bees belong to the order Hymenoptera; butterflies and moths belong to the order Lepidoptera; and flies and mosquitoes belong to the order Diptera. Scorpions and arachnids, which typically qualify as bugs in a layperson’s understanding, belong to an entirely different class (Arachnida) under the phylum Arthropoda. The specificities of taxonomical differentiation among the orders of insects (and class Arachnida) are relatively meaningless in the face of a layperson’s deficit of entomological knowledge and surplus of fantastical imagination. In a survey examining perceptions, attitudes, and values regarding invertebrates, Stephen Kellert unsurprisingly discovered that the general public “largely expressed feelings of aversion, dislike, or fear toward most invertebrates, particularly insects and spiders” and that for

²⁰ Sobchack, *Screening Space*, 45.

the most part, they “revealed the least knowledge of taxonomic differences among invertebrates.”²¹ For example, only 11% of the general public knew that all insects are arthropods, and only 23% knew that spiders are not insects.²² Rather, people tend to classify bugs according to appearance, movement, and what kind of affect the creature might provoke from them. For this reason, I include members of the class Arachnida in my analysis, because even though they are different from insects in that they have eight legs rather than six, no wings, and only two segments to their body (the cephalothorax and abdomen), they nonetheless stir many of the same projective affects (disgust, aversion, fear) as is evident in their abundant use in the big bug films of the 1950s. Though members of the subphylum Crustacea, which includes crabs, lobsters, and shrimp, might be more closely related to insects than spiders or scorpions, I have not included crustaceans in my analysis in part because they provoke different affects than do bugs, and in part because atomic cinema representations of them were relatively scarce.²³

Invasion Metaphors and Gender in *Them!* and *The Deadly Mantis*

In 1954, Warner Brothers released the first big bug film. A surprising popular and critical success, *Them!* was not only the studio’s highest-grossing film of the year, but it was also nominated for an *Oscar* for special effects. Unlike the monsters from virtually all of the other

²¹ Kellert, “Values and Perceptions of Invertebrates,” 849.

²² Kellert, “Values and Perceptions of Invertebrates,” 850.

²³ Morphologically speaking, there is no reason why crustaceans should not serve as an appropriate alien form to embody cinematic atomic anxieties, especially since they share exoskeletons in common with insects, and their underwater habitation (and our propensity to consume their flesh) might recall the dangerous radiation of the underwater blast of Test Baker at Bikini Atoll. Roger Corman’s *Attack of the Crab Monsters* (1957) explicitly takes up the issue of the Bikini Atoll nuclear tests when a group of scientists land on a remote Pacific island to research the effects of the radiation on the island’s plant and sea life, and soon discover two mutated, intelligent giant crabs.

films I will analyze, the giant ants in *Them!* were full-sized models.²⁴ *Them!* was neither the first nor the best film to explicitly register atomic anxieties, but in the subgenre of mutated monsters and big bug films, it was one of the era's most important and popular, and established the conventions and tropes that were to follow in a succession of less critically acclaimed but no less popular big bug films.

Them! takes place in the desert of the White Sands and Alamogordo region of New Mexico, instantly conjuring the not-too-distant cultural memory of the Trinity test, the first nuclear weapon exploded on July 16, 1945 in the Jornada del Muerto Valley. Intense secrecy shrouded the test. The public was not given accurate information about what had occurred until after Little Boy had been dropped on Hiroshima. Even so, many people local to the region had an inkling that something catastrophic had happened, since the effects of the bomb had been felt over a hundred miles away: windows were shattered in Silver City over 120 miles away, and Albuquerque residents saw the bright light from the explosion and felt the shock waves.²⁵ For the most part, though, the public was not aware of the Trinity test until the technology had already been implemented against the Japanese people.²⁶ But by the time *Them!* premiered, the location of the Trinity test was widely known, so the barren landscape

²⁴ Two ant models were developed for the film, a complete specimen, and a partial model including only head and forequarters. John Brosnan explains the construction of the ant models in further detail in *The Primal Screen*: "The latter was mounted on a boom which gave it some mobility and this one was used for most of the close-ups of the ants' heads. It was capable of moving its head, mandibles and antennae by means of a series of levers and knobs operated by a large group of seating men off-camera. The complete model was used for long shots as well as a few overhead shots where it appears to be walking but was actually being towed along a camera dolly." (91)

²⁵ Some scientists' wives from the Los Alamos Laboratory stayed up all night to witness the test, which was 230 miles away. Jane Wilson described the experience: "Then it came. The blinding light [no] one had ever seen. The trees, illuminated, leaping out. The mountains flashing into life. Later, the long slow rumble, Something had happened, all right, for good or ill." Wilson and Serber, *Standing By and Making Do: Women in Wartime Los Alamos*, x-xi.

²⁶ For more information on the history of the Trinity test, see Lansing Lamont's *Day of Trinity* and Ferenc M. Szasz's *The Day the Sun Rose Twice*.

against which the ant threat takes place evokes not only atomic test sites like Trinity but an inhospitable place which makes human thriving difficult.

The Cold War context in which *Them!* was produced is expressed in the film by several motifs which set the stage for future big bug films: preoccupation with national security and demarcating territorial boundaries; cooperation between the law, military, and science; the rhetoric of biblical apocalypse; and psychosexual crises and anxieties over shifting gender roles. *Them!* moves through a hierarchical progression of authority and expertise, which culminates in the fusion of scientific knowledge and military force to effectively solve the invasive threat of gigantic insectoids.

The narrative opens with the New Mexico Police Department conducting a search via plane and squad car in the desert for a lost little girl, whom they discover wandering the desert alone, her face frozen in an expressionless gaze, clutching a doll with part of its head missing. When the police check out a nearby trailer they suspect belongs to her family, it has been torn apart, the family is gone, and just a few mysterious clues like an imprint in the sand and some sugar are left behind. The two policemen find the town's quaint general store similarly destroyed, and the owner, Gramps, dead. The combined efforts of local law enforcement and the FBI prove ineffectual, so scientific experts and military officials are sent in from Washington. An imprint of the strange tracks left at both crime scenes is sent to the Department of Agriculture and a father-daughter team of myrmecologists (ant researchers), Doctors Harold and Patricia "Pat" Medford, are sent to investigate the strange happenings. So great is the little girl's trauma that she remains mute and wide-eyed until the elder Medford waves a vial of formic acid in front of her face, which rouses her into a state of frenzy, in which she can only scream "Them! Them!."

Once the local law enforcement and the FBI agents conclude that there is “lots of evidence but nothing adds up,” Harold Medford offers his own “theory of genetic mutation” in which he suggests that the giant ants are a “fantastic mutation due to lingering radiation” from the first bomb test which occurred nine years earlier. Bumbling and good-natured, Harold Medford conforms to the stereotype of the absent-minded professor. He adheres to scientific method by not speculating on his findings until he has gathered sufficient evidence to support his hypothesis. During a minacious presentation to the police and the FBI, Harold drives home the film’s oblique comparison of the ants’ destruction with human destruction. He calls the ants the “only creature on earth besides man to wage war on its own kind,” recalling the postwar editorials of Cousins and Baldwin which make similar parallels. He continues, saying that the



Figure 2.1: Pat cowers as the first monstrous ant makes its appearance in *Them!*

ants have an extraordinary capacity for “industry, social organization, and savagery that makes man look feeble in comparison.” Harold’s description of the ants easily evokes the symbolic enemy of the Soviet Union by referencing the ant’s “instinct” for slavery and organization and describing a totalitarian society in which dissent is not allowed and prisoners of war are rendered slave laborers.

Dr. Medford is assisted by his daughter Pat, who functions within the film as both competent scientist and helpless

love interest. The shot which first introduces Pat accentuates her femininity over her professionalism, and prioritizes rendering her a sexual object to take pleasure in looking at over her scientific expertise—the shot lingers leisurely on the sleek contours of her legs as she steps off the airplane, and follows the point of view of the two men waiting to greet her at the airport. Conventional close-ups of women’s body parts in film, especially legs and faces, momentarily remove the woman from the narrative diagesis and freeze her in what Laura Mulvey calls a “no man’s land” which has a flattening effect that “destroys the Renaissance space, the illusion of depth demanded by the narrative.”²⁷ While the men’s gaze is allowed to become the camera’s gaze (and by proxy, our gaze), Pat’s first appearance on screen is limited to a disembodied leg rendered an object for the visual pleasure of these men. Once the two men swallow their initial astonishment that a woman could be a “doctor,” the FBI agent, Bob Graham, quips that “if she’s the kind that takes care of sick people, [he] thinks [he’ll] get a fever real quick.” The film has already made clear that Pat will need to struggle against sexual objectification to be taken seriously as a professional in the workplace.

Even as Pat proves herself competent and articulate, she nonetheless must manage any inferiority or threat the men around her may feel. In one of her first interactions with law enforcement officials, she explicitly mentions the possibility that they might feel threatened by working with an educated woman by saying “If Doctor bothers you, why don’t you call me Pat.” When the giant ants first arrive on the scene, Pat replicates the convention from just about every creature feature film ever made when she screams and falls down. Despite the fact that Pat must be saved from the savage monsters in several scenes, she nonetheless asserts her agency in several key moments. When the Medfords, law enforcement officials, and military personnel

²⁷ Mulvey, “Visual Pleasure and Narrative Cinema,” 63.

finally come upon the ant colony entrance and are about to enter, FBI agent Bob Graham attempts to bar Pat from entering by insisting that “this is no place for you or any other woman.” Pat asserts that her scientific training makes her the only person capable for the job, effectively overcomes Bob’s objections, and plays a pivotal role in detecting the absence of the two queen ants. On the one hand, Pat squashes Bob’s protestations by foregrounding her scientific expertise as imperative to the mission at hand. On the other hand, it is telling that the only occasion where Pat steps outside her father’s shadow and becomes an expert in her own right within the filmic diagesis is to assist in locating the queen ant nest, as though womanhood provided her a more innate intuition for locating the reproductive headquarters of the ants. Nonetheless, by the end of the film, Pat’s role as active scientist is contained and her conventionally feminine role, as subordinate to the man she loves, is reestablished.

Preoccupation with national security suffuses *Them!*, along with the presumed need to avoid public panic. The opening scene begins with a New Mexico Police Department plane flying over the barren desert landscape, a signal that upholding the law and restoring order will play a substantial part in the narrative mechanism. When Sergeant Ben Peterson and FBI agent Bob Graham brief the Medfords on the recent occurrences, they point out where key events have happened in the area on a large map of Otero County, which is when the Medfords (and we as the audience) are fully informed as to just how close the action is to the Trinity test site. The elder Medford asks, “In what area was the atomic bomb exploded... I mean the first one back in 1945,” and Sergeant Ben Peterson responds, “right here in this same general area,” encircling with his finger a radius around the sites of the mysterious happenings.

Cooperation between the law, the military, and science in *Them!* focuses on managing the general population’s panic. In order to contain public panic, the rights of the individual are

sacrificed. When a pilot in Texas spots the flying queens, he is hauled off to a psychiatric ward when he reports it, and even when the scientists verify his sighting, he remains locked up so the story does not leak. Additionally, when the “authorities” hold a press conference before the ant assault on the Los Angeles storm drains to announce that the city has been placed under martial law, the state of emergency is accepted without question “in the interest of public safety.” Even when the elder Medford gathers evidence to support his hypothesis that giant ants are the source of the havoc, he insists that his findings remain a secret so as to avoid public panic.

Them! presents American social order as comprised of people who possess expertise in their own narrowly defined area of interest. Protagonists associated with the institutions of the law, the military, and science, must find common language which renders their specialized knowledge intelligible to others. At the start of *Them!*, everyone expresses annoyance at one another’s ways of relaying their expertise. The local police officer complains of being kept in the dark by the FBI’s procedures. When Pat explains that she and her father are myrmecologists, the FBI agent peevishly retorts, “Why don’t we all talk English?! That way we’d have some basis for an understanding.” Even the scientists find the others’ rules inscrutable and useless. When Professor Medford uses the helicopter radio to communicate with Pat, he is instructed that he must sign on and off in a particular way and that he must use the official code names Search Able and Search Baker. Exasperated, Medford blows a raspberry and says, “This is ridiculous. A lot of good your rules are going to do us.” As the narrative progresses, the vexed lines of communication between these various experts settle into the kind of cooperation that Cousins and Baldwin from earlier in this chapter would hope for humankind to manifest. While the human protagonists of *Them!* struggle to interact effectively within social hierarchy, the ants seem to function seamlessly as a colony.

The giant ants embody emergent anxieties not just regarding national security but changing gender roles in the 1950s. First, ants are social creatures which operate as a collective. As the movie promotional poster touts, they are a “horror horde,” the horror in part deriving from their overwhelming multiplicity. But because they also organize themselves and effect strategic plans despite being much lower on the evolutionary scale of complexity from humans, they imperil a human sense of dominion and superiority over most other creatures on earth. Especially in contrast to how American social hierarchy is situated within the film, the ants clearly embody political anxieties about Communist invasion. Their assault is swift and brutal, spreads rapidly, and threatens national safety to the point that public panic is feared. Secondly, ant society is matrilineal.²⁸ The queen ant is the brood mother of the entire colony, and the male role within the colony is relatively restricted to drone status. In contrast to Pat Medford (a professional woman who is ultimately limited to a role in a traditional romance plot by the end of the film), the ants represent uncontained feminine excess. Insect reproduction is the real threat of the film, rather than the immensity of the ants themselves. Insect life cycles pass more quickly than our own; their populations have potential to grow much more exponentially than our own. If the queen ants had successfully established colonies in the Los Angeles sewer system, the “horror hordes” would indeed take over the earth in sheer numbers. The film’s climax, which pits the ants’ attempt at further reproduction against the destabilization of a human nuclear family, reveals what historian Kimberly Williams calls the “gendered paradox at the heart of American nationalism” which “requires the paranoid rhetoric of a national feminized vulnerability to feminized threats of all kinds as a means of legitimating the state’s masculinized and usually

²⁸ It is technically inaccurate to assert that ant colonies are matriarchal. The term “queen” misrepresents the actual role that the queen ant plays holistically in the colony. The queen ant is responsible for all reproduction and is the mother of all the ants in the colony, but her decision-making within the colony stops there and she has relatively little control over the colony itself.

militaristic expansionism.”²⁹ The reproductive imperative of the ants feminizes foreign invasion while their last victim, a widow whose husband the ants have killed and whose young sons are trapped underground with the ants, embodies the feminized vulnerability of a nation whose borders are not secure. Even though the narrative resolves the ant threat with successful destruction, and compensates for the threat against nuclear family composition with a potentially budding relationship between Pat and the FBI agent, the film nonetheless closes with a tone of anxiety and foreboding, and an uncertainty about the sustainability of the future. The elder Medford utters the last lines of the film: “When man entered the atomic age, he opened the door to a new world. What he will find in that new world, nobody can predict.” The menacing size of the ants exaggerates their propensity to proliferate, and amplifies the film’s underlying fear of excessive insectoid reproduction subsuming humanity and the infrastructures we’ve created. The attention which *Them!* pays to how excessive the insect reproductive cycle can be suggests that bias informs cultural discourse about insects by insisting on the prominence of the female.³⁰

The feminized Communist invasion of the ants in *Them!* and its successors threatens to violate the masculinized borders of nation and state, but perhaps the most explicitly framed example of the intertwining of gendered discourse and Communist paranoia is in *The Deadly Mantis*. The invasion emerges in the narrative not just in terms of how the female praying mantis breaches American borders but in the ensuing state of emergency catalyzed by that breach. The way that military personnel call upon everyday citizens to be vigilantly observant evokes the ways in which people were asked to be vigilant for Communist spies. A group of citizens called

²⁹ Williams, *Imagining Russia*: 31.

³⁰ Almost the exact opposite of how bias works in ornithological literature where the female’s plumage is described as “somewhat duller” in comparison to the more brightly colored male as M.M. Van de Pitte argues in “‘The Female is Somewhat Duller’: The Construction of the Sexes in Ornithological Literature.”

the “Ground Observer Corps” are recruited by an emergency broadcast to scan the skies in search of the deadly mantis. Instead of implementing a desert landscape and thus bringing to mind the atmospheric testing sites in Utah, Nevada, and New Mexico, the barren and hostile environment of the Arctic region is the site of the bug’s origins. The mantis is unleashed by a confluence of natural occurrences having nothing to do with nuclearism and its gargantuan size is explained by its prehistoric age. Nonetheless, the mantis’s invasion of American borders from the Arctic north has immediate political and cultural relevance. The film propagandizes and exposes the limitations of the Distant Early Warning Line (DEW Line). The DEW Line was a system of radar stations situated in the north Arctic region of Canada, a Cold War project that went operational in 1957 and was intended to detect and provide early warning of incoming Soviet bombers, and land and sea invasions.

The first sign that the praying mantis is on the move comes from a DEW Line military outpost in North Canada—the men there have been attacked and are not responding to incoming calls. When commanding officer Col. Joe Parkman investigates, he discovers the post destroyed, its attendants vanished, and giant slashes mysteriously imprinted in the snow much like the mysterious ant tracks in *Them!*. Soon another blip on the outpost radar screen is detected, and the pilot sent to investigate is attacked, a curious pointed object is discovered amidst the wreckage. The clue is sent to General Mark Ford at Continental Air Defense and prominent scientists are gathered to identify the object to no avail as they refuse to hypothesize without sufficient evidence. At this point, Dr. Nedrick Jackson, a paleontologist at the Museum of Natural History, is consulted, and eventually identifies the object as a spur from the leg of a gigantic praying mantis. Dr. Jackson is sent to the military outpost to investigate further, and discovers that the

museum magazine editor, Marge Blaine, has been granted permission to accompany him as a photographer.

The mantis poses a reproductive threat similar to that of the ants in *Them!*. Though never explicitly confirmed in the film, the mantis presents as female and we can surmise that her migration is actually a search for a hospitable location to lay her now dethawing eggs. When wounded in flight the mantis crawls into the Manhattan Tunnel, a subterranean locale echoing the ants' movement to the storm drain networks under Los Angeles. The female praying mantis is a particularly monstrous figure into which fears and anxieties about sexually aggressive women can be projected. Notorious for ripping heads off male mates during copulation, the female praying mantis, as Elizabeth Grosz puts it, “[continues] to haunt the imaginations and projections of men,” and “[represents] an intimate and persistent link between sex and death, between pleasure and punishment, desire and revenge.”³¹ As I explain in a later chapter detailing Philip K. Dick's use of female praying mantises as a model for female androids like Rachael Rosen in *Do Androids Dream of Electric Sheep?*, the common lore surrounding this link between sex and death during mantis copulation is somewhat of a misconception; scientific observation in the closed quarters of a laboratory elicited these discoveries and they happen much less frequently in the wild. Nonetheless, the gap between observable fact and projective fantasy means little here. The mantis as a figure embodies the concept of a sexually aggressive and dangerous woman who threatens to castrate and otherwise feminize men. Although promotional materials for *The Deadly Mantis* depict the mantis primarily threatening Marge (see Figure 2.2) rather than one of the many men, no such scene occurs in the film. At work in this promotional photograph, and in a bevy of movie posters I examine in a later section, is the kind of feminized

³¹ Braidotti, *Metamorphoses*, 188.



Figure 2.2: Promotional photo for *The Deadly Mantis* which shows the praying mantis model threatening Marge Blaine as she screams, an event which does not occur in the film.

sexual order” is at stake.³²

By rendering a giant praying mantis and monstrous ants as uncompromising feminine threats to masculinist American social order, *The Deadly Mantis* and *Them!* offer nonhuman villains with whom it is near impossible to feel alliance or an inkling of commonality. Pat Medford’s role in *Them!* as a woman scientist seems to suggest acceptance of the growing visibility of highly educated women in professional settings, yet the matriarchal and communist societal structure of the ant colony undercuts such acceptance by displacing it onto what Peter Biskind calls “a paranoid fantasy of a world dominated by predatory females... presided over by a despotic queen.”³³ Although Biskind’s reading of the ant colony has been rejected by Jerome Shapiro as “fallacious anthropomorphizing and not consistent with the narrative,”³⁴ there is nothing anthropocentric about acknowledging the fact that ant societies are matriarchal, as this is

vulnerability that Kimberly Williams explains as the rationale for paranoid masculinist rhetoric about the militaristic protection of American borders against feminized threats like “pinkos.” While Marge’s body is not directly threatened by the mantis in the film, the photograph reminds potential audiences of how “the maintenance of domestic social and

³² Williams, *Imperial Brotherhood*, 65.

³³ Biskind, *Seeing is Believing*, 133.

³⁴ Bellin, *Atomic Bomb Cinema*, 105.

an accurate reflection and not just mere projection; and the primary threat the ants present hinges upon reproduction. Like Pat in *Them!*, Marge's role as an adjunct science professional is undercut by the rarity of her feminine presence in an exclusively male environment. When she visits the DEW outpost to document the strange phenomenon, one officer swoons, "He's with a woman. A female woman," and another, "She's like a butterfly, gliding across a lily pond." Much like how Pat's professional endeavors are subordinated to her budding love interest, Marge's eagerness to capture photographs of the vanquished mantis at the end of the film is blocked by her new love interest, who takes her camera away to kiss her instead.

Unleashing Nature: The Role of the Scientist in Big Bug Films

Science fiction films featuring monstrous creatures grown huge due to irradiation, or awoken from a century-long slumber because of the environmental effects of atomic testing call into question what constitutes, in Susan Sontag's terms, "proper, or humane, use of science, versus the mad, obsessional use of science."³⁵ The mad scientist who pursues experiments that defy the laws of nature is a prominent trope in the genealogy of science fiction, as is the creation of a monster that runs amok.³⁶ At stake in these tableaux is what constitutes "proper" science: the extent to which humanity experiments with Nature, and the consequences of going too far in tampering with its mysteries. *Beginning of the End* (1957) and *Tarantula* (1955) feature benevolent scientists with good intentions that catalyze disastrous consequences: both scientists conduct superfood experiments in the hopes of alleviating famine concerns in the wake of massive human population growth.

³⁵ Sontag, "The Imagination of Disaster," 216.

³⁶ Mary Shelley's *Frankenstein*, Robert Louis Stevenson's *The Strange Case of Dr. Jekyll and Mr. Hyde*, and H.G. Wells's *The Island of Dr. Moreau* all feature crazed scientists whose creations turn against their creators.

Beginning of the End, Burt I. Gordon's follow-up to *Them!*, stars enormous radiation-induced locusts on a destructive rampage.³⁷ The locusts have grown large as a side effect of an experiment executed by an Illinois-based agricultural scientist, Dr. Ed Wainwright, working for the Department of Agriculture, who has successfully grown gigantic vegetables using radiation (radiation encourages photosynthesis, he explains).³⁸ Well-intentioned in his quest to end world hunger with irradiated vegetables, the scientist discovers the consequences of tampering with nature soon enough.

The film's requisite female character is not a scientist who will help solve the filmic conflict with entomological knowledge, but rather a reporter whose profession depends on documenting stories. Audrey Aimes, who works with the National Wire Service, arrives on the scene because she has been stopped while traveling on an Illinois highway by military officials, and discovers that a small town has been destroyed and that all of its residents have mysteriously vanished. Sensing a story, Audrey sets off in search of clues and finds herself in conversation with Dr. Wainwright, who informs her that mysterious events have been occurring ever since he discovered that a swarm of locusts consumed a silo's worth of radioactive wheat. They discover that the locusts have grown to huge proportions and are not only devouring local vegetation, but have developed a taste for human flesh as well. As with *Them!* and *The Deadly Mantis*, the locusts migrate from a less populated area in rural Illinois to the urban area of Chicago, resulting

³⁷ Under favorable population density conditions, certain grasshoppers enter a swarming phase which we recognize as locusts, a nomadic swarm which causes disastrous damage to crops. There is no official taxonomic differentiation between grasshoppers and locusts.

³⁸ William M. Tsutsui has suggested that films like *Beginning of the End* may have expressed fears about increasingly sophisticated insecticide and pest removal formulas like DDT in "Looking Straight at *Them!*: Understanding the Big Bug Movies of the 1950s."

in the military threatening to destroy the entire city with an atom bomb if the threat is not contained.

Beginning of the End amplifies biblical apocalyptic allusions. Perhaps less surprising than with *Them!*, since plagues of locusts are standard apocalyptic fare, the rhetoric of such scenes in *Beginning of the End* is no less totalizing in its evocation of utter destruction. In the requisite exposition video Wainwright screens to inform the military, the public, and us, the audience, about what we are up against, is the ominous warning that “the time will come when the beasts will inherit the earth,” which plays upon a reversal of human domination over the earth and its creatures and the fear that humanity will destroy itself.

Tarantula features another well-meaning yet foolhardy scientist who attempts to solve world hunger but instead suffers nature’s wrath for having tampered with the sacredness of life. Food scarcity compels the scientist to conduct experiments on animals; he uses an atomic isotope to create a superfood nutrient. Though some of the animals thrive on the nutrient, gigantism is one of the unfortunate side effects and humans dosed with the nutrient suffer fatal deformity. *Tarantula*, like *Beginning of the End*, is unusual among the big bug films in that it focuses on superfood since the tarantula’s gigantism is accounted for by its exposure to a radioactive isotope.

The film begins in the desert, evoking the atmospheric site of nuclear weapons testing. The camera follows a deformed man stumbling, collapsing, and dying. The local town doctor is summoned to examine the body and is stymied as to the interpretation of the exhibited symptoms. Dr. Hastings suspects the dead man might be Dr. Eric Jacobs, a scientist who has been experimenting out in the desert, and so he drives to the desert laboratory that Dr. Jacobs shares with Professor Deemer. Once there, Dr. Hastings discovers that the two scientists have

been experimenting with gigantism in an attempt to solve world hunger. A menagerie of horrors worthy of Dr. Moreau is shown, from rats, to rabbits, to the titular tarantula which soon grows monstrously big and rampages through town. The next day, a young and beautiful lab assistant, Stephanie Clayton, who goes by the boyish nickname “Steve,” shows up in town inquiring about the desert laboratory. She has been hired to assist in the laboratory as part of her master’s degree program.

Rampant reproduction is not the primary threat in *Tarantula* as was the case with the queen ants in *Them!*. Neither is the threat one of overwhelming multiplicity and complete degradation of environmental resources as with the swarming locusts in *Beginning of the End*. The oversized tarantula which escapes from Deemer’s laboratory is singular and isolated like the deadly mantis, so it is not able to reproduce. Instead, the latent anxiety which haunts the filmic backdrop of *Tarantula* pertains more to the ill effects of the “obsessional science” Sontag refers to: while the tarantula spreads destruction in its wake, looms dramatically against the desert landscape on cliff precipices, and scuttles haphazardly through town, it is contained by a napalm attack launched by a squadron of jets. The real horror which suffuses the film concerns the deformity of the scientists who have undertaken the experiment and who inject themselves with the super nutrient with disastrous consequences.

Like Pat from *Them!*, Steve is a “lady scientist” called upon to assist in vanquishing the insectoid fear. As a graduate student, however, she is a scientist-in-training and not yet a fully formed member of the scientific community. Her role is as assistant rather than fully credentialed scientist, and her encroachment on a primarily masculinist space of knowledge production not fully threatening. It is clear within the narrative that her status as an available and attractive woman trumps her status as scientist. At one point, while embarking on a shopping spree, Steve

says, "Science is science but a girl must get her hair done," thus emphasizing the delicate balance between professionalism and femininity which she must maintain. Her feminine maintenance is not overlooked by the local town doctor, either, who swoons upon seeing her, "If you don't look out, the Chamber of Commerce is going to list you in their publicity with the local attractions."

Both Stephanie and Patricia are referred to as "Steve" and "Pat," as though the boyification of their names yields them greater agency within the narrative. While Steve and Pat are both scientists, one in training and the other fully formed, they are both relegated to helper roles. Steve gladly fulfills her technician duties as a trainee in the laboratory. Pat remains subordinate to her father's expertise throughout the film, and largely fulfills his commands with daughterly subservience. Audrey Aimes initially promises to skirt the masculine regimes of law, military, and science, by scooping the story on her own, but her professional ambitions quickly recede into the background as she becomes the love object of a conventional heterosexual romance plot.

The narrative aims to contain femininity in professionalized roles, and each female character becomes a scopophilic object of pleasure which further contains femininity on-screen. Scopophilia forms the basis of feminist film theorist Laura Mulvey's canonical essay "Visual Pleasure and Narrative Cinema." The cinematic apparatus of classic Hollywood cinema puts the spectator in a masculine subject position vis-à-vis the figure of the woman on screen as the object of desire in Mulvey's analysis of cinematic scopophilia. This relationship of looking is called "the male gaze," and Mulvey identifies the positionality of Hollywood women characters of the 1950s as coded by "to-be-looked-at-ness." There are two distinct modes of the male gaze during this era: voyeuristic (the woman as image "to be looked at" without her consent or knowledge) and fetishistic (the woman as substitute for the lack, the underlying psychoanalytic fear of castration). Female characters in big bug films are subjected to the

voyeuristic gaze by male characters. Recall that Pat's first visual introduction in *Them!* amputates her leg from the rest of her body as she is ogled by the male protagonists. Marge in *The Deadly Mantis* is also the object of much visual pleasure when she accompanies Ned to the DEW outpost and is even described as like a butterfly.

Bugs and the Damsel in Distress

Special effects played a crucial role in drawing audiences into 1950s science fiction films. Large scale puppetry, stop motion animation, and bluescreen technology drew film-goers into a fantasy world where the logic of everyday life seemed not to apply anymore. Creature features in particular used these technologies to spectacular effect when experimenting with scale. The eponymous arachnid of *Tarantula* oscillates between a large-scale puppet and a live tarantula set against horizons and homes to assure the audience of its monstrous size. When the protagonist of *The Incredible Shrinking Man* (1957) shrinks to insect size after exposure to a radioactive cloud,



Figure 2.3: Scott Carey discovers that his basement is rife with danger now that he is shrunk down to insect size in *The Incredible Shrinking Man* (1957). A spider which just that morning posed no threat to him now appears two to three times his size.



Figure 2.4: The tarantula in *Tarantula* dwarfs the small town which it threatens and the people in it. This shot closes the movie, with the townspeople's safety restored, and the male and female protagonist holding one another, an ostensible sign that the heterosexual romance plot wins once again.

he battles an ordinary house spider and the house cat.³⁹ Neither of these fantastic scenes of scalar distortion would be possible without bluescreen technology to manipulate the backdrop against which the spider appears. While special effects manipulated the insect-human scale on-screen, movie promotional posters worked towards the same effect off-screen.



Figure 2.5: Promotional poster for *King Kong* (1933) which features the African setting where Kong comes from, and prioritizes a nearness between Kong and the natives while he clutches Ann Darrow clad in a skimpy red dress.



Figure 2.6: Promotional poster for *King Kong* which features the New York City setting where Kong ultimately dies. While Kong is depicted still clutching a helpless Ann Darrow, the metropolitan atmosphere is accentuated by white Americans adorned in nightlife elegance.

³⁹ The psychosexual connotations of an increasingly shrinking man might be obvious. As Scott shrinks, his wedding band falls off, his wife no longer needs to tiptoe to kiss him, and he eventually resides in a doll house. Although the novel which the film was based on, *The Shrinking Man* (1956) by Richard Matheson, details how these complications affect Scott's marriage, the film portrays in passing Scott's increasing emasculated hostility towards his wife.

Promotional posters for big bug films relied upon scalar proportion to heighten the horror of the featured bug, but used cliché gender and race tropes as well. The influence of creature feature precursors, *King Kong* (1933) and *Godzilla* (1954), on big bug films is evident in both facets. The racialized anxiety embodied in the simian protagonist of *King Kong* and the atomic anxiety embodied in the saurian protagonist of *Godzilla* provided a formula for big bug films to follow in mapping cultural fears, anxieties, and aspirations onto animal form. Big bugs, much like King Kong, are depicted as a radical Other and presented in visual terms as a threat to white social order, and more specifically, white femininity.

The *King Kong* franchise fixates on a curiously human simian in a distorted but recognizable Darwinian fantasy of devolution. The *King Kong* films (but especially the 1933 version) depict black men as subhuman or simian, and King Kong himself is aligned with blackness in several regards: he is taken from his homeland and brought to the United States shackled and chained, and he breaks free only to die because of his desire for a white woman. The racist comparisons between King Kong and black men have been noted by numerous scholars who have emphasized how monstrous hybridity relies upon the threat of the masculine, racialized Other to white womanhood.⁴⁰ The confluence of racial and sexual dynamics put in play by the promotional posters for *King Kong* provide a powerful precursor to the big bug promotional posters to come: the image of King Kong clutching Ann Darrow (who is almost always pictured in a revealing crimson dress) has become iconic.

Not only were the nuclear bombings of Hiroshima and Nagasaki still fresh in the Japanese consciousness when *Godzilla* was conceived as a metaphor for the devastating effects

⁴⁰ See “Killing the Beast: *King Kong* in Black and White,” in Joshua David Bellin’s *Framing Monsters: Fantasy Film and Social Alienation*, (21-47) and “Spectatorship and Capture in *King Kong*: The Guilty Look,” in James Snead’s *White Screens Black Images: Hollywood from the Dark Side*, (1-28).

of nuclear weapons, but so too were the deaths of crewmembers aboard the Japanese fishing boat *Lucky Dragon 5* from fallout after the Bikini Atoll testing. Nuclear testing in the Pacific awakens Godzilla from a dormant state, and gives him radioactive powers, which he then uses to terrorize Tokyo.⁴¹ Racial and atomic anxieties on par with those at work in *King Kong* and *Godzilla* play out in the promotional poster for *Them!*. The poster depicts a black ant in the foreground clutching a white woman between razor-sharp mandibles. The ant's eyes are more expressive than in the film, and filigreed with bloodshot capillaries. White citizens dressed in business suits and elegant dresses flee the scene of mayhem: a caption bubble above one woman reads, "Kill



Figure 2.7: Promotional poster for *Them!*.



Figure 2.8: Promotional poster for *Beginning of the End*.

⁴¹ See Chon Noriega's "Godzilla and the Japanese Nightmare: When *Them!* is U.S.," and Steve Ryfle's "Godzilla's Footprint."

one and two take its place!” emphasizing the multitudinous quality of ants. Fire blazes directly behind the citizens, and continues into the background where yet another ant knocks down skyscrapers. The ants and the flames dwarf the military officials present in the scene. A text box informs the poster viewer, “This city is under martial law until we annihilate ‘THEM’!” The complete Otherness of the ants is emphasized by the use of “them” which is also splayed diagonally across the image. The racial codification which the image subtly alludes to in the form of giant ants taking over Los Angeles suggests white flight, according to Eric Avila, who has argued that *Them!* is among a cluster of films which dramatize how “mainstream white audiences may have viewed the movement of blacks and other racialized minorities into the cities as not so much a migration, but rather an invasion of what had previously been white space.”⁴²

Codification of racial anxiety in the form of completely Othered bugs continues in the promotional materials for *Beginning of the End*. A black locust looms in the center of the poster, ready to sink its fang-like teeth into the torso of a blond white woman draped in a red evening gown which has slid suggestively up her thigh as she lays prostrate and screaming. Like the ants from the *Them!* poster, the locusts are darkly colored, have expressive and mean-looking eyes which do not correspond with what the film itself presents, and are featured wreaking havoc on a metropolis while military personnel ineffectually attempt to contain the threat. The bottom left foreground transposes an image of the film’s main protagonists, Audrey Aimes and Ed Wainwright, both fulfilling stereotypical gender roles. Audrey clutches Ed’s chest, her mouth bright red and screaming in horror; Ed leans protectively into Audrey, mouth grimacing in concentration as he aims a revolver. In total, there are four different women featured on the

⁴² Avila, “Dark City: White Flight and the Urban Science Fiction Film in Postwar America,” 56.

poster, and only one of them is an actual woman who features in the film: two are dressed in revealing red clothing and resemble pin-up models, and another is almost completely obscured behind the foreground image, showing an elegantly dressed couple reaching their hands out in hesitant horror. The role that urban space plays in the film is accentuated by the background of the poster, which shows several skyscrapers mounted by a proliferation of grasshoppers bearing toothsome grins.

The promotional poster for *Tarantula* capitalizes on the well-worn imagery of a colossal beast as well. The poster depicts the titular protagonist with its mandibles clenched around the torso of a busty woman in a scanty negligee. The tarantula has two eyes (instead of the correct eight eyes), which in contrast to the ants from the *Them!* poster and the locusts from the *Beginning of the End* poster, lack expressivity, heightening its complete Otherness. Transposed in the lower right-hand corner, the heroic protagonist protectively clutches Steve Clayton as her mouth gapes open in astonishment. In the upper right-hand corner, two thumbnails depict some of the narrative perils both will face, and operate as apparent microcosms of how gender dynamics are intended to play out. One image presents a man shows him in a professional role, actively engaged in science and surrounded by the accoutrements of the



Figure 2.9: Promotional poster for *Tarantula*.

laboratory. The caption reads: “Researchers seeking clues!” The other image depicts a woman, ostensibly Steve, a laboratory researcher, here relegated to cowering against the wall clothed in a flimsy nightgown, with a dark and phallic mandible-fang looming in the foreground. None of these images represent any actual scene from the film itself, but instead serve as a lurid lure for filmgoers seeking titillation. The tarantula poses a singular threat compared to the “horror horde” of *Them!* and the multitude of locusts in *Beginning of the End*, so its body engulfs almost the entire frame. Beneath it, a similar panorama of panicked white citizens flee a destroyed city infrastructure.

The sensational promise of giant racialized insectoids threatening white damsels in distress was an effective marketing tool. While human-insect dynamics operate differently in the films themselves, the images presented on promotional posters promised masculinist protection of feminized vulnerability by portraying giant bugs about to consume, either sexually or as food, the damsels in distress we see clutched in their various insect appendages. These images lit upon a potent register of anxieties that “beasts will inherit the earth” through the latent threat of interspecies rape—a somewhat paradoxical threat given that many of the big bugs were gendered female, and posed significant threat because of excessive reproduction.

More surprising than the voyeuristic male gaze within the narrative mechanism of big bug films is the gaze of the big bugs themselves, who often become “peeping Toms.” In *Beginning of the End*, a woman wrapped only in a towel struts around her sky rise apartment assured of her privacy, yet a giant locust who has scaled the skyscraper stops momentarily to peer in on her. In *The Deadly Mantis*, Audrey



Figure 2.10: A woman manicures herself unaware that a giant locust is peeping in on her in *The Beginning of the End*.



Figure 2.11: The mantis's eyes gleam through the window at an unsuspecting Marjorie Blaine in *The Deadly Mantis*.



Figure 2.12: Stephanie "Steve" Clayton is about to disrobe and go to bed when the tarantula peers in the window at her in *Tarantula*.

Aimes paces back and forth in the study of the DEW military outpost while the mantis's eyes take up the entirety of the window frame. In *Tarantula*, Steve busies herself with the domesticities of the house and turns around to find the compounded eyes of the tarantula at eye level. The succession of "peeping Tom" scenes, wherein big bugs peer in at unwitting women, is especially strange within the purview of Mulvey's male gaze paradigm given that the bugs are frequently feminized. Does this make the bug's gaze queer in its momentary cross-species relationality of looking? It would appear so. Not only is the bug's gaze often same-sex, but it traverses human/nonhuman boundaries. The queer nonhuman gaze in these scenes represents what Noreen Giffney and Myra Hird suggest in *Queering the Non/Human* is "an attempt to undo normative entanglements and fashion

alternative imaginaries.”⁴³ In films where big bugs signify human (and, more specifically, male) anxieties about excessive reproduction, the voyeuristic exchange is oblique and queer, muddying the heterosexual romance which the plot strives to sustain. Such scenes of eroticized looking queer Mulvey’s male gaze paradigm across species. For a moment, the bug seems to take a curious pleasure in gazing at the female character, and is briefly aligned with the male viewer. Nonetheless, the women’s reactions in these films when they realize that they are the object of the bug’s gaze manifests differently than when they realize they are in a human man’s line of sight. When human men look at them, they accept it; when the bug looks, they shriek in horror. If the bug’s gaze can be read as queer, in terms of sexuality and species, then that queerness is aligned with the feminized Communist threat that must be rejected and destroyed to save the homeland and the nuclear family.

While female protagonists are subjected to voyeuristic scopophilia by man and bug alike, the fetishistic gaze contains them on screen. The big bugs are more often the target of the fetishistic gaze in the Freudian sense of woman as lack signifying castration to the man. One could have a virtual analytical field day with the proliferation of phallic imagery in big bug films. Mandibles, forcipules, and stingers, all evoke penile shape, and close-ups of these insectoid body parts often show them secreting various oozes and fluids suggestive of semen. Whereas insectoid phalluses accrue power through repetitive close-ups, human phalluses are rendered impotent when confronted by the monstrously feminine bug. Guns and other arsenals of weaponry are useless against the vast scale of the bug.

Human-Insect Hybridity in *The Fly*, *Wasp Woman*, and *Mesa of Lost Women*

The intersection between scientists and insects in 1950s cinema is not exclusively limited to “big bugs.” In a smaller subgenre of the “experiment run amok,” a scientist tampers with the laws of

⁴³ Giffney and Hird, *Queering the Non/Human*, 4.

nature in order to create, or become him or herself, a human-sized bug, which is significantly different from the monstrous and towering menace against which typical arsenals of weapons are useless. The ramifications of unethical science continue to be important in this subgenre, but the reversal of scale to a more human size allows the film to articulate a different kind of paranoia about insect invasion. Instead of flight and fear, the Cold War paranoia expressed in these films involves hybridity and the perils of merging with nonhuman entities. The crisis of self that is brought on by the incorporation of insect elements into individual human bodies relies upon body envelope disgust sensitivities. The ensuing nonhuman transformation the characters in these films experience ultimately calls for science to remain vigilant in protecting the sanctity of humanness. In *The Wasp Woman* (1959), the main female protagonist willingly becomes a test subject for the effects of the wasp royal jelly, her eagerness to restore her youth and thus restore her cosmetic company's profits trumping rational caution. In *Mesa of Lost Women* (1953), exoticized women serve as unwilling test subjects. Dr. Aranya's harem of spider-woman hybrids are voiceless and convey their agency only through sultry looks, strange, sexual dances, and murder. In both *Wasp Woman* and *Mesa of Lost Women*, the consequences of conducting unethical experiments on female human test subjects, and introducing insect elements into specifically female humans, raises the specter of the contaminated body but with different outcomes. In contrast, the scientist in *The Fly* (1958) conducts his matter teleportation experiments on himself (and a few household animals as well), but leaves his wife out of it: she remains the symbol of domesticity, and the cautionary voice of Luddite technology who insists that tampering with Nature's laws will yield disaster.

Uneasily situated among other human-insect hybrid films of the 1950s, *The Wasp Woman* features not a male scientist who undergoes a horrible insectoid transformation nor a male

scientist who coerces unwilling female test subjects into a transformation-inducing experiment. Instead, Janice Starlin, the founder and owner of a successful cosmetics company, eagerly insists that she herself become a test subject for a wasp royal jelly enzyme purported to reverse the aging process, and once she finds that the formula is not acting expediently enough, begins to take more than the recommended dose.

Janice's eagerness to restore her youthful beauty may be seen as foolish vanity given the consequences, but her cosmetic company's profits are shown to depend upon it. The opening scene introduces Janice as a woman of poised authority and confidence. She stands at the head of a conference table of mostly male staff using a pointer to indicate on a graph that quarter's steep drop in revenue, and demanding accountability from her staff. When they nervously falter, she interrupts them severely. Though Janice is initially presented as a professional woman comfortable at the head of the table, her authority and power are quickly compromised by an assault on her physical appearance. When Janice asks where to put the responsibility for the drop in revenue, one man volunteers, "On you, Miss Starlin. We've all been looking at it for the past 20 minutes," and then springs out of his chair, takes the pointer from Janice, and muscles her out of the way. When Janice sarcastically interrupts him, he insists that she not interrupt him and she in turn apologizes, a reversal of her earlier use of interruptions to maintain her authority in the room. The man then goes on to insinuate that Janice's face has become a "symbol" since it has been the only face represented in the company's advertising campaigns over the last two years, and that the signs of her visible aging have discouraged consumers from trusting the effectiveness of the product.

In order to save her sinking revenues, Janice collaborates with wasp researcher Dr. Eric Zinthrop, who has been successful in extracting age-reversing enzymes from the royal jelly of

the queen wasp. The role that Zinthrop plays in the film suggests that he fits into the “mad scientist” archetype. In a prologue which was added after production to pad the film’s length, we learn that Zinthrop is not a “team player” scientist because he has veered away from experimenting on bees and towards wasps without the permission of the company he works for, which results in his termination. The prologue ends with the insinuation that Zinthrop has perhaps taken too intense an interest in his wasp subjects, because he contentedly talks to the wasps as though they understand him and seems unconcerned about his termination. Men from the cosmetics company murmur about whether or not Zinthrop is a “quack,” a “phony,” or a “confidence man.” However unstable Zinthrop’s experiments may be, he insists that testing on a human subject may be unsafe and it is Janice, rather than Zinthrop, who decides that caution is



Figure 2.13: Promotional poster for *The Wasp*

unwarranted and only agrees to collaborate on the condition that she serve as the human subject. Impatient with the slowness of the results, Janice breaks into Zinthrop’s laboratory and injects herself with massive doses of the formula.

The choice of a queen wasp as the insect into which Janice slowly metamorphoses is significant not just because wasps are predatory, but they are aggressive as well. Villainous female monsters are constructed as a threat to masculine social order, in part because their sexual aggressiveness contradicts the puritanical ideology that female sexuality is passive and



Figure 2.14: Janice Starlin from *The Wasp Woman* transforms into a murderous wasp woman at night.

receptive. Janice's transformation fits into the paradigm that Barbara Creed calls "the monstrous-feminine," which is "constructed within/by a patriarchal and phallogentric ideology," and "related

intimately to the problem of sexual difference and castration."⁴⁴ Janice's anxiety about becoming less sexually attractive, which signifies not just personal but capital loss since her company's success depends upon her face, is deeply imbricated in the socially constructed gender expectation that she maintain a youthful appearance despite aging. Her worth, not just as a woman but as a corporate executive, depends on her beauty instead of her ability in this scenario. The monstrous-feminine reveals societal conceptions "what it is about women that is shocking, terrifying, horrific, abject."⁴⁵ Before the transformation, Janice is already partly monstrous because she fails to live up to impossible beauty standards. Her desperation to salvage her remaining youth is what ushers forth her transformation into a sexually consumptive murderess who transgresses the puritanical model of female sexuality.

The poster for *Wasp Woman* accentuates how Janice's transformation subverts traditional power relations. The poster reverses what actually occurs in the film, showing a wasp with the head of a beautiful and seductive woman reminiscent of the film noir *femme fatale* and the body of a wasp. In the film, only Janice's head is transformed and the rest of her body retains human

⁴⁴ Creed, *The Monstrous Feminine*, 2.

⁴⁵ Creed, *The Monstrous Feminine*, 1.

form. In the poster, the wasp-woman hybrid dominates the frame as she hovers threateningly over a prone and vulnerable man, suggesting reversal of sexual violence: she is the rapist, and he the victim. The tagline describes her as “a beautiful woman by day- a lusting queen wasp by night,” thus relying on heliotropic convention to suggest the abnormality and deviance of the creature. The movie poster plays with what Creed has termed the “phallic woman” who “either has a phallus or phallic attribute or she has retained the male’s phallus inside herself.”⁴⁶ Playing upon big bug films which present monstrous insectoids with phallic mandibles and stingers, which sometimes even drip with strange drool or mucous reminiscent of semen, the *Wasp Woman* poster renders the stinger phallic.

When Janice seeks a male staff member’s counsel about collaborating with Zinthrop, the gender of the insect is framed as a predatory threat to masculine social order, and the warning ominously foreshadows Janice’s slow transformation into a murderous wasptress. The staff member says, “I would stay away from wasps if I were you. Socially the queen wasp is on a level with the black widow spider. They’re both carnivorous, they paralyze their victims, and then take their time devouring them alive. They kill their mates in the same way too. Strictly a one-sided romance.” Although the film emphasizes how Janice’s wasp form carries out such acts on men, her actions are discovered and stopped only when she turns her attention towards women. Janice kills a nurse by straddling her on the couch and penetrating her skin with her stinger, and the blood-soaked cardigan she leaves behind provides a necessary clue to two suspicious coworkers on her trail. In the film’s climax, Janice overpowers a young secretary named Mary and drags her into the laboratory where she has been conducting wasp experiments herself. Does Janice want to murder and consume Mary like all her other victims, or, more

⁴⁶ Creed, *The Monstrous Feminine*, 156.

dangerously, does she wish to transform Mary into a wasp woman too? Whatever her intent, it is at this point that Zinthrop observes that Janice can no longer be considered a human being, but rather, a monstrous woman, a living embodiment of male fears of sexually aggressive women. The film ends when Zinthrop throws carbolic acid on Janice's face, once the symbol of cosmetic beauty but now marred by the grotesque compound eyes and antennae of a wasp, and a male associate pushes her out the window. Much like the scenes I describe above where the window serves as an important barrier which protects women from invasive and ill-intending insects, here social order must be restored by ejecting Janice's contaminated body through the window at the precise moment where she threatens to overtake and devour, or perhaps assimilate, another woman.

Mesa of Lost Women evinces a different perspective on the imbrication of woman, insect, and science than *Wasp Woman*, but one which nonetheless still invokes monstrous femininity. The only film I include in my analysis which takes place south of the border, *Mesa* is set in the Muerto Desert, the "desert of death" which one character calls "the most godforsaken spot on Earth," on the Zarpa Mesa ("zarpa" is Spanish for claw, which provides an initial clue as to the nonhuman experimentation which takes place).⁴⁷ Mad scientist Dr. Aranya (derived from araña, which means spider in Spanish) conducts gland experiments which result in human-sized tarantulas, tall, beautiful, and exotic women with "the abilities and instincts" of the spider, and grotesque male dwarfs. The spiders grow no larger than a human, and the men and women on

⁴⁷ The only big bug film besides *Mesa of Lost Women* which takes place in Mexico is *The Black Scorpion* (1957). I have not included this film in my analysis because the black scorpion's appearance is geological in origin (an earthquake births a new volcano in which the prehistoric scorpion and its brethren have flourished up till now) and not due to atomic technology. Although the deadly mantis's initial thaw from an iceberg as the result of climate fluctuations due to a volcanic eruption is also a geological and not atomic explanation, its feminization and migration onto American soil, as well as the central role that science and the military play in its eradication, better qualify it as a candidate for analysis.

whom the gland experiments are performed take on only the “capabilities and abilities” of a spider and none of its morphological form. In contrast to Janice Starlin’s ill-fated agency over her transformation into a wasp woman, Dr. Aranya’s subjects appear to have had little say in the matter and they loiter in early scenes of his laboratory like the monstrous animal-human hybrids of H.G. Wells’s *The Island of Dr. Moreau*. The science behind why the merging of human and spider biology in Aranya’s laboratory strengthens female subjects while dwarfing male subjects remains unclear, though the movie poster’s indication that “[t]hey were all a man desired, beautiful, kissable, lovable, BUT deadlier than a black widow spider” foregrounds the importance of the spider-woman hybrids’ seductiveness over and above the supersized spiders and the dwarfed men.

Widely panned as one of the worst films of the 1950s, *Mesa* ham-handedly opens with an overly melodramatic narrator who frames the film in terms of an age-old struggle between “man and the hexapods” (notably, within the film, the insectoid creature comes from arachnid stock so should be an octopod) while a guitar incessantly strums vaguely flamenco-esque music, also meant to heighten the exoticism of the locale and the spider-woman hybrids:

Strange, the monstrous assurance of this race of puny bipeds with overblown egos, the creature who calls himself Man. He believes he owns the earth, and every living thing on it exists only for his benefit. Yet how foolish he is. Consider, even the lowly insect that Man trods underfoot outweighs humanity several times and outnumbered him by countless billions. In the continuing war for survival between man and the hexapods, only an utter *fool* would bet against the insect.⁴⁸

The narrator’s rhetoric recalls the anxiety about insect invasion in the postwar editorials I examined at the beginning of this chapter. Instead of adopting a hopeful tone, the narrator

⁴⁸ It bears mentioning here that the narrator’s overblown situating of the battle between “man and the hexapods” bears little resemblance to what actually occurs within the narrative. Hexapods have six legs; arachnids have eight. These are the kinds of entomological distinctions which are of little importance to filmmakers, but which grate on entomologists when watching films.

remains cynical about the probability of human survival and references that insects outweigh and outnumber humankind. The frame provided by the narrator condemns Aranya's experimentations as imprudently opening the Pandora's Box of nature.

The film begins with Leland Masterson, the world's foremost organotherapist, trekking out to Dr. Aranya's remote desert laboratory for collaborative purposes.⁴⁹ While waiting for Dr. Aranya, Masterson peruses the laboratory, picks up a book called *The Nervous Systems of Insects*, and takes note of the strange, dwarfish men and tall, beautiful women milling around the laboratory. We learn that Aranya has been successful in "isolat[ing] the growth hormone of the anterior pituitary, the specific substance which controls the growth pattern of human beings," and that he has been experimenting with transferring hormones between creatures of different species, achieving "amazing results" from experiments on tarantulas which "grew as large as human beings."

Dr. Aranya's pièce de résistance is a seductive and mute insect-woman hybrid called Tarantella. Clad in heavy makeup, knife-like fingernails, and scanty clothing, Tarantella has all the markers of a *femme fatale* and yet she is stripped of the capacity to speak for herself. She performs a bizarre dance in a Mexican cantina halfway through the film which works the male spectators into a frenzied sexual lather. Upon introducing Tarantella to a horrified Leland Masterson, Aranya gloats that "she has human beauty and intelligence but still possesses the capacities and instincts of the giant spider... she has the indestructibility of an insect." In contrast to vital Tarantella, the male specimens are all characterized by dwarfish attributes which Aranya justifies accordingly: "Unfortunately in the insect world, the males are puny, unimportant things." The disparity in how the hexapod gland affects male and female specimens echoes the

⁴⁹ An organotherapist experiments with glandular extracts from the organs of animals.

narrator's insistence that, compared to insects, humans, and especially men, are "puny" and "feeble."

Wasp Woman and *Mesa* share an underlying fear of human-nonhuman hybridity, and the contaminated female body. The introduction of insect elements into the female human body in these films makes Janice and Tarantella less human, as they give themselves over to the natural tendencies of their respective insect species. When Janice is declared no longer human by Zinthrop, this justifies her extermination. Tarantella's actions are monstrous and murderous just like Janice's. As both give themselves over to what has been framed as the natural instincts of their respective insect species—the female wasp is accused of devouring her mate, and Tarantella is just as lethal as the "black widow spider" according to the promotional materials—Janice and Tarantella transgress the puritanical feminine ideal which expects women to be passive receptacles for conventional heterosexual courtship even as their predicament is the responsibility of an irresponsible male scientist. Janice and Aranya flout the scientific method by conducting unregulated experiments and produce disastrous results which even further



Figure 2.15: Tarantella begins her seductive dance with her fingers posed bizarrely in front of her face as though they were mandibles in *Mesa of Lost Women*.



Figure 2.16: A promotional photograph for *Mesa of Lost Women* shows Tarantella stretched out on the ground while the spider puppet looms behind her, suggesting the dark fusion between the two.

strengthen the association between femininity and bodiliness through monstrous hybridity which suggests that “men were not born to be daddies, but dessert,” as David J. Hogan has colorfully put it in *Dark Romance: Sexuality in the Horror Film*.⁵⁰ Scientist Andre Delambre in *The Fly* (1958) similarly bypasses the approved conventions of the scientific method in his eagerness to test his matter-transmitting machine and accidentally exchanges his head and one arm with a housefly.⁵¹ Though his face and arm are covered throughout most of the film, the final reveal shows an alien-looking fly head anxiously twitching around, and the only first-person perspective shot of the film cuts to what Andre must see through his now compound vision.

The Fly is more than a narrative about a scientist’s transformation into a human-insect hybrid: it’s about patriarchal control. The narrative opens up on the discovery of Andre’s body crushed by a hydraulic press, and his wife Helene confessing to having killed her husband. When Helene tells the truth about what has happened, of course nobody believes her and she is nearly institutionalized. The film centers on domesticity and family life fairly intensely and in many ways Helene is the primary protagonist: it is only through her frame narrative that the progression of events that led up to Andre’s demise is revealed. The narrative emphasizes the

⁵⁰ Hogan, *Dark Romance*, 63.

⁵¹ *The Fly* is based on a short story by George Langelaan which first appeared in the June 1957 issue of *Playboy*.

psychological toll of Andre's transformation and death on Helene over and above the transformation itself.

All of the men in the narrative vie for control over Helene's story and her body. While the film concludes with a pathos-saturated scene of Andre-as-fly caught in a spider's web, it is Helene's position in the world that the fly mirrors. All of the patriarchal forces in the film—embodied in institutions like law enforcement, the psychiatric asylum, and the laboratory, not to mention the composition of the nuclear family—are themselves a kind of spider web ensnaring Helene and threatening her freedom. Despite all this, Helene is nonetheless depicted as perfectly content in her wifely role of subservience. It is Helene who cautions Andre not to use live animals in the Disintegrator Integrator, and she is the one that (rightfully) fears the implications of the technology. The conservative, Luddite perspective on science and technology is embodied in Helene, who is primarily confined to the home and domestic life, whereas the progressive, forward-thinking perspective is



Figure 2.17: Andre's insect-human hybridity is finally revealed in *The Fly*.



Figure 2.18: Helene's screaming reaction is multiplied by the compound vision of Andre's fly vision in *The Fly*.

ascribed to Andre and the other men in the narrative who praise science as the “search for truth” and as “the most important work in the whole world and the most dangerous.” And yet, Nature really *does* win out in the end. The spider eats the fly-sized hybrid. The human-sized hybrid kills himself in the hydraulic press. Nature cleans up Andre’s mess and restores order. Although Andre desperately attempts to reclaim his humanity after the accident, both the fly-sized and human-sized bodies perish in what amounts to a failed experiment. Monstrous hybridity appears in *The Fly* not as vampy feminine excess imbued by the predatory instincts of wasps and spiders, but as the mistaken confidence of a patriarchal father and scientist.

“The winner of World War III will be the cockroach:” Atomic Myths and the American Cockroach

Ants, praying mantises, tarantulas, wasps, flies, and locusts paraded across the cinematic screen in the 1950s as totems of atomic anxiety. Yet for the contemporary spectator there is one glaring absence from this caravan of insectoid critters: cockroaches. The myth that cockroaches will survive nuclear apocalypse is so deeply engrained in the American popular imaginary that it surfaces almost everywhere.⁵² Intuitively, this makes sense. Cockroaches are resilient, as any city dweller knows. And they have survived much longer than almost any other insect. Cockroaches have inhabited the Earth for at least 250 million years, and cockroach fossils have been found in rocks from the Upper Carboniferous period, which makes them one of the hardiest of the winged insects. Yet it is astounding how deeply the sense of cockroaches surviving beyond humans has become, especially considering that none of the big

⁵² I include in the American popular imaginary any text which espouses intuitive understanding for “the masses” and circulates “common knowledge” as such. For example, the now-defunct supernaturally inflected tabloid rag, *Weekly World News*, featured a story on June 28, 2004, which played upon the old joke that there are only two things that will survive nuclear blast: cockroaches and Cher (or Keith Richards) with a story called “Dick Clark and Cockroaches Will Survive Nuclear Blast” (12).

bugs that flourished on-screen in the 1950s as manifestations of atomic and other Cold War anxieties took on cockroach form. How did the cockroach become the bug of choice for promulgating the myth of nuclear survival, and, is such a belief even true?

Contemporary invocations of the American cockroach as outlasting humanity and inheriting Earth have origins in several disparate strands. Cockroaches have proved more durable than humans in radiation tests. Whereas a human could only tolerate a dose exposure of radiation upwards of about 800 rads (a measured dose of radiation that causes tissue damage), the cockroach could withstand an exponentially higher amount: the American cockroach withstood about 67,500 rads, and the German cockroach an astounding 100,000 rads as May Berenbaum explains.⁵³ Early radiation tests instantiated the cockroach as a superlative emblem of the inheritor of the Earth after we will have destroyed it with nuclear technology. The simple body plan of the cockroach is precisely what allows for such stalwart resilience to radiation. In contrast, the human body plan is so complex that it is de facto more vulnerable to the effects of radiation. That simplicity is the cockroach's saving grace in this facet is metaphorically resonant. The idea that simplicity is a boon to survival compared to the complexity which humans imagine to be superior to other animals is striking especially in the face of weaponry we created with that complexity.

The myth that cockroaches will survive nuclear apocalypse also owes much to witness accounts that began to circulate in the immediate wake of the 1945 bombings of Hiroshima and Nagasaki. According to these reports the only signs of life remaining were cockroaches scurrying among the ruins. Yet another catalyst for instantiating this myth can be attributed to the National Committee for a Sane Nuclear Policy (SANE). In July 1965, SANE placed a full page advertisement in the *New York Times* which featured a diminutive cockroach displayed against a stark white backdrop. The text below the

⁵³ Berenbaum, "Rad Roaches," 132-33.



Figure 2.19: Full page advertisement placed in the *New York Times* by the Committee for a Sane Nuclear Policy which ominously predicted that the cockroach would be the only winner of World War III.

striking image boldly predicts that the “winner of World War III will be the cockroach.”⁵⁴ The text accompanying the advertisement asserts that if nuclear war occurs, the winner would not be America, Russia, or China, but a “venerable and hardy species, that will take over the habitations of the foolish humans, and compete only with other insects or bacteria.”⁵⁵

The figural timescale of the survival of the cockroach has intensified in contemporary cultural registers, suggesting that the rhetoric of insect survival and takeover has persisted. In 1999, the *New York Times Magazine* held a competition to build a time capsule that would preserve information for a thousand years. In what one judge described as the most

⁵⁴ “The winner of World War III,” *New York Times*. July 22, 1965: 13. For more on how anti-nuclear activists, especially SANE, promulgated the cockroach myth, see Richard Schweid’s *The Cockroach Papers: A Compendium of History and Lore* and Milton S. Katz’s *Ban the Bomb: A History of SANE, the Committee for a Sane Nuclear Policy, 1957-1985*.

⁵⁵ The aftermath of nuclear threat has been represented through a range of representations, and the reframing of the original events in these representations has also contributed to popular understanding. One scholar points to “serious studies by Helen Caldicott and Jonathan Schell” as responsible for “populariz[ing] the notion that insects—especially cockroaches—would rule the earth after a nuclear exchange.” See David Monteyne’s *Fallout Shelter: Designing for Civil Defense in the Cold War*, 272.

“disgustingly brilliant” proposal, technology guru Jaron Lanier proposed cockroaches as the ideal archival storage unit.⁵⁶ The cockroach’s genomic stability and its tenacious ability to survive myriad natural and human made disasters renders it a “robust repository” for Lanier’s project. “It would survive a nuclear attack,” Lanier assuredly proclaims.⁵⁷ His proposal details how recombinant technology will be used to translate computer memory (“made of bits, which exist in two states (zero or one)) into mitochondrial DNA sequences (“composed of four ‘base pairs’”), then transmitted to cockroach intron DNA by injecting it into eggs. Only eight cubic feet of cockroaches are needed in order to transmit all the required information, and would be released throughout Manhattan with Lanier estimating that within fourteen years, “the archival roaches will inexorably become so endemic as to become a ubiquitous and permanent feature of the island.”⁵⁸ The proposal relies on the cultural myth of cockroaches as the ultimate survivor: their simple body plan, hardy resilience, and rapid reproduction making them the ideal candidate. As much as this proposal may seem like the script for a dystopic horror movie about “science gone wrong” like Guillermo del Toro’s *Mimic* (1997), Lanier insists that it is not a “joke or social commentary,” but rather, “the best technological solution to meet the demands of the constraints presented.”⁵⁹

The most popular and recent manifestation of the survival cockroach myth comes from the Disney/Pixar film, *Wall-E* (2008). *Wall-E* features a cute cockroach named HAL who keeps the eponymous feeling robot company amidst a wastescape of consumer gluttony. The name HAL is but one of the film’s several references to the sinister robot of Arthur C. Clarke and Stanley Kubrick’s cross-media collaboration, *2001: A Space Odyssey* (1968). HAL’s survival makes clear postatomic anxieties not just about what might survive in our wake but what might remain the same. In one of the film’s

⁵⁶ Lanier, “Designs for the Next Millennium: Jaron Lanier.”

⁵⁷ Lanier, “Designs for the Next Millennium: Jaron Lanier.”

⁵⁸ Lanier, “Designs for the Next Millennium: Jaron Lanier.”

⁵⁹ Lanier, “Designs for the Next Millennium: Jaron Lanier.”

many cute moments, HAL dives headlong into a Twinkie—the junk food of the atomic age—and emerges with a satisfied “boink! boink!,” its antennae covered in frosting. Though this moment is humorous because we’d like to imagine a cockroach companion playing in the froth of our unexpired processed food while a robot puzzles its way towards sentience by creating new categories for the human inventions he stumbles upon—a Rubik’s cube, a spork—it nonetheless presents a stark tableau of the world we trashed and abandoned.

The pervasiveness of the atomic cockroach myth makes clear how anxieties about insect invasion persist even now, although the kinds of rhetoric deployed and to what ends might signify differently. Jaron Lanier’s proposal that cockroaches would be a suitable archival repository for safekeeping human information acknowledges the potential destruction of the world by our hand and invests in the notion that insects, especially cockroaches, might reign in our wake. Paradoxically, Lanier desires to preserve human information in insect form. Human culpability for the destruction of the world is even more evident in the trashed world on which we first encounter Wall-E. The atomic cockroach myth promulgated in Lanier’s proposal and Wall-E depends upon the kind of paranoid insect invasion rhetoric which circulated during the 1950s. Likewise, the mutant bug and human-insect hybrid films exhibited paranoia not just about atomic anxieties and Communist invasion but the proper deployment of scientific knowledge and military force to eradicate national threats, including war, competition for limited resources, and geopolitical conflicts. Feminized bugs and the women they terrorized became a compellingly appropriate form for articulating these anxieties because, as creatures considered “lower” and more “simple” but perhaps more successful in their survival strategies, their eradication on screen allowed for feelings of vindication and triumph at having national borders secured and safe.

Chapter Two

Control Centipedes: William Burroughs's Entomological Horror

In the introduction to a volume of William Burroughs's last journal entries which describe his despondency over the loss of his cat companion Ruski, James Graverholz emphasizes that "the significance of William's empathy with animals cannot be overstated."¹ In his old age Burroughs discovered the graceful wonder of animals like cats and lemurs, and lavished affectionate prose on them in texts like *The Cat Inside* and *Ghosts of Chance*. In sharp contrast to this late-life adoration of mammals is his more characteristic attention to stylized and graphic depictions of addicts of all kinds gruesomely transformed into insectoid and other invertebrate horrors. Burroughs's strange cast of characters parasitize one another, undergo strange metamorphoses, develop mouthparts and other parts that perform tasks more insect than human.

This chapter contends with Burroughs's use of the centipede as a central character in his mythology about the detrimental effects of a society of control. Whenever a centipede appears in Burroughs's writing, it is a rather slippery yet always negative signifier. Tools of torture and ritual execution architecturally resemble centipedes in his texts, and debased human beings transform into giant centipedes. Burroughs's fantastic landscapes, unmoored from traditional novelistic form and populated by monstrously hybridized creatures, unveil how we demarcate humanity from animality, and the peculiar role that insectoid creatures and arthropods play in that demarcation. Although it may be uncommon to interpret Burroughs's textual experiments as

¹ Burroughs, *Last Words*, x.

part of a speculative genealogy, I will do precisely that in this chapter. His *Naked Lunch* and other texts feature hybrid creatures who are often part-human, part-animal; his characters jump across time and space; and the laws of the natural world are often superseded by fantastical qualifications which perform the kind of cognitive estrangement which Darko Suvin argues is so foundational to the genre.

The figurative centrality of the centipede in Burroughs's textual experimentations has gone relatively unexamined, no one has yet made the connection between Burroughs's deep aversion towards centipedes, and how he incorporated this aversion into his theories of language and his formal method of producing text, the cut-up form.² Finally, little attention has been paid to the full extent to which his texts are saturated not just with invertebrate and insectoid figuration in general, but centipede figuration specifically. I focus on how the aversive affects which Burroughs's insectoid monstrosities provoke ultimately expose the relationship between language, control, and subjectivity. I draw from Burroughs's correspondence, journals, and interviews, as well as from his tetralogy written and published from 1959 to 1964, which comprises *Naked Lunch* (1959), *The Soft Machine* (1961), *The Ticket That Exploded* (1962), and *Nova Express* (1964). This chapter approaches Burroughs's centipedal figuration through the lens of aversive affect and engages with sources that Burroughs would have found central to his thinking and writing.

² Valuable historical context for Burroughs's fascination with Maya snake and centipede iconography has been provided by Paul Wild, yet his analysis does not delve significantly into the ways in which centipedes haunt Burroughs's texts as a powerful symbol of control. Paul Wild is more interested in how Burroughs represented Maya priests as gods of death, and argues that Burroughs's reworking of the role of priests in Maya culture was presciently attuned to recognizing violence in ancient Maya culture several decades before archaeological evidence would shift the state of knowledge. Wild traces the state of knowledge from the 1950s, which was when Burroughs would have immersed himself in the available scholarship, through the 1980s. Wild, "William S. Burroughs and the Maya Gods of Death."

Assault on the Senses through Cut-Ups and Centipedes

Peppered amidst Burroughs's late musings on the comfort of warm-blooded animal companions like cats are numerous reminders of his aversion towards centipedes in particular. In his last journal entry just a few days before his death on August 2, Burroughs put the final punctuation on his overall opinion of centipedes by declaring that "a centipede can be seen as a test upon which Love, like St. Francis used to make, would shatter."³ Burroughs exposes a fundamental investment in the importance of empathy and love which, on the surface, might seem entirely absent from the often grotesque situations in his texts. Yet the frequent appearance of the centipede is an antithetical emblem which serves as a reminder of what might be lost if empathy and love are forfeited. For Burroughs, the centipede is morphologically, affectively, and behaviorally repulsive because it cannot receive or provide reciprocally positive feelings in the kind of way that warm-blooded animals like cats and lemurs might.

Despite being utterly repulsed by the centipede and what he believed it represents, references to centipedes regularly surface across his oeuvre. The drug addict narrator of Burroughs's first novel, *Junky* (1953), recounts a hallucinogenic vision from a heroin high in which centipedes and other arthropods reign over the ruins of a world devoid of humans. "One afternoon, I closed my eyes and saw New York in ruins. Huge centipedes and scorpions crawled in and out of empty bars and cafeterias and drugstores on Forty-Second Street."⁴ Here the horror of centipedes is contained in the direct effects of drug addiction and does not yet extend into the symbolic. Burroughs first considers the symbolic import of centipedes for his larger control cosmology in *Queer*, and hints at the origin of his fascination with them by referencing a "page

³ Burroughs, *Last Words*, 252.

⁴ Burroughs, *Junky*, 23.

of an ancient Mayan codex, of doubtful authenticity, [which] shows a man tied to a couch, threatened by a huge centipede.” He imagines “[m]en changing into huge centipedes,” and “centipedes besieging the houses,” ultimately querying: “Is this literal? Did some hideous metamorphosis occur? What is the meaning of the centipede symbol?”⁵ Even before Burroughs canonized the centipede as an agent of control in his later tetralogy, he was already thinking through how arthropodic body plans capture the kinds of “hideous metamorphosis” he sees at work in a society of control.

The narrator of *The Western Lands* (1987), who is tasked with being the chronicler for a team of scientists collecting centipedes and obtaining samples of their venom on a fictionalized South American island, admits that part of the team’s objective beyond empirical research is affective; they are to measure antipathy and aversion towards centipedes “to ascertain to what extent the centipede merits the horror and loathing in which he is... universally held.”⁶ The narrator shares his view on centipedes:

Let me confess that I *hate* centipedes, above all other creatures on this horrid planet. And I am not alone in this aversion. Many others have confessed to me that they hold a special antipathy for this creature, which is so far removed from the mammalian mold... There may be people who like centipedes. I have seen people handling tarantulas and scorpions, but never a centipede handler. Personally, I would regard such an individual with deep suspicion.⁷

Later in this same passage, the narrator implicates humans who may have an infinity for such creatures as “[traitors] to the human race,” even suggesting that someone who keeps a pet centipede should be executed.⁸ Such a statement appears to operate by the logic whereby pets are

⁵ Burroughs, *Queer*, 88-89. *Queer* was written between 1951 and 1953 and considered an extension of *Junky*, but was not published until 1985 because of concern that the heavily homosexual content could be dismissed as obscene.

⁶ Burroughs, *The Western Lands*, 85.

⁷ Burroughs, *The Western Lands*, 85.

⁸ Burroughs, *The Western Lands*, 86.

meant to participate in reciprocal exchange with their stewards; humans who keep pets that we perceive as incapable of returning one's gaze or affection are deficient by proxy since their interest in such a pet exposes a lack of the same in them.

Not only are centipedes creatures who do not warrant sympathy for Burroughs, but they are to be treated with deep suspicion because they remind us of the evolutionary chasm that separates humans from other ostensibly inferior forms of life. In an intriguing passage from his late journal, Burroughs makes this distinction clear.

Now I had always assumed that only love in its widest context could create life. I can feel myself stroking and loving lemurs, cats, weasels out of the air—But who or what could stroke a fucking centipede, scorpion, funnel-web spider out of any air and love it? Perhaps a move to some further foothold on the evolutionary cliff of survival. “There was no other way on to the snake, the lizard, the furred lizard... *Animals! Homo Sap!*” (Deafening applause) The centipede exists to remind us of the fall we might have taken, except for that repugnant ledge... You see, the centipede was a step to a snake, a lizard, an animal. And this is [the] basis for a centipede being rejected more than any rejection: looking down on the fall we might have taken, except for that repugnant, momentary ledge.⁹

The visualization of evolution here as a hierarchically-tiered mountain reveals a speciesist logic on Burroughs's part. Creatures like centipedes, because they are understood to represent a simpler and thus inferior form of life, are placed at the base of the mountain. Humans are at the summit, superior for having ascended the various steps of evolution towards a more complex form of life. Though even as Burroughs posits a humanist view which depends on abjection of animal alterity, he undercuts and satirizes this scalar view with a mocking interjection. When describing the various steps in-between centipede and human, Burroughs emphasizes the distance between cold-blooded invertebrates and arthropods (centipedes, scorpions, funnel-web spiders, snakes, and lizards) on the one hand, and lovable animals (lemurs, cats, and weasels) and humans, on the other hand, by using ellipsis followed by excitedly italicized and capitalized

⁹ Burroughs, *Last Words*, 129-30. Ellipsis original.

Animals! Homo Saps! The ellipsis, italics, exclamation marks, and even the parenthetical description which reads like both a stage direction and narratorial reportage, stylistically convey the abyss which separates lower and higher forms of life. That abyss is defined by language and the capability to respond or react to another entity. Cats meow, lemurs call, weasels chitter, so Burroughs grants them a chair at the table of legible, legitimate life, since they possess the means to communicate with one another and form individual relationships. Solitary predators like centipedes or spiders, by contrast, are judged to share no common language, and are thus not capable of love or responding to one another meaningfully: this statement is not just about centipedes in a literal sense but rather, what they represent in all their “repugnance” to Burroughs.

Burroughs’s invocations of centipedes in his texts are not stories about social insects like bees or ants which reflect back to us our own cultural values—we are not trapped in the anthill of society that Dostoyevsky’s Underground Man describes in *Notes From Underground*, nor are we the child-friendly egalitarian ants of *Antz* and *A Bug’s Life*.¹⁰ Instead, Burroughs emphasizes the solitary nature of the centipede.¹¹ The centipede does not collect food like Aesop’s industrious ants or care for the rest of the hive—it hunts alone, armed with venomous forcipules and alarming speed.¹² Burroughs’s centipede figuration, by contrast to these parables of productive and social creatures, evokes a more monstrous image of the insect by rendering it singular, speedy, and dangerous, and its morphology triggers unpleasant feelings of horror, disgust, and

¹⁰ See Fyodor Dostoyevsky’s *Notes from the Underground* (1864), *Antz* (1998), and *Bug’s Life* (1998). The Underground Man imagines the Crystal Palace as a site of socialist collectivism and compares it to anthills, suggesting that “man, perhaps, loves only to erect a building, and not to live in it” (30).

¹¹ In the next chapter I will analyze how Philip K. Dick capitalizes on how spiders are also solitary predators.

¹² Carnivorousness and predation are traits that centipedes share with the Order Scorpiones within Class Arachnida, which also feature prominently in Burroughs’s texts. Scorpions, too, are characterized by hard carapaces, grasping claws, and venomous stingers which loom over the length of their bodies.

fear. The seemingly multiple advancement of a single creature pricks a sense of unease that may go even deeper than that felt when confronted by a teeming swarm of bugs. Embedded in the very etymology of centipede is the combination of the Latin prefix *centi*, meaning “one hundred,” and *-pes*, meaning “foot.”¹³ Both the jointed segmentation and the unnerving speed with which a centipede advances seemingly out of nowhere contribute to a larger body panic related to disgust towards insects, evoking the “senseless, formless urging” that Aurel Kolnai associates with the disgusting nature of insects.¹⁴ Burroughs not only frames insectoid alterity as a negative axis by which to measure degraded humanity, but as a shadow mirror into which humanity gazes upon its ugliest potential.

Burroughs’s aversive feelings towards centipedes provided him with an integral coordinate for the mythological map of the detrimental effects of control which his texts sketch. “‘Control’ is the name Burroughs proposes as a term for the new monster,” Gilles Deleuze explains of the gradual shift from disciplinary apparatuses of power to a more diffuse matrix in which surveillance saturates every facet of life.¹⁵ The grotesqueries which Burroughs lays out in his texts are an attempt to thwart such mechanisms of control as “[b]rainwashing, psychotropic drugs, lobotomy and other, more subtle forms of psychosurgery” by jamming lines of

¹³ The centipede body plan is characterized by one pair of legs per segment and not fused into pairs, so it can never have one hundred legs as its name implies.

¹⁴ Insects trigger disgust because of the ways in which they overwhelm and repel us, seeming to hold in tandem an excess and a lack of life. Hungarian philosopher Aurel Kolnai, whose scholarship on disgust remains influential, speaks of how insects emanate a “strange coldness, the restless, nervous, squirming, twitching vitality [that gives] the impression of life caught up in a senseless, formless surging.” Kolnai, *On Disgust*, 58. Anxiety about the line between life and death which bugs straddle concentrates on fetid fecundity, both poles mixed together. Profusion is key here as well: insects confound scale with their size (singularly and *en masse*), and usually, where there is one, there are often many, which can threaten a sense of singular and self-contained individual identity. Some can bite, sting, or parasitize, triggering a feeling that the bodily envelope has been jeopardized and that control over one’s body is not as complete as imagined.

¹⁵ Deleuze, “Postscript on the Societies of Control,” 4.

communication with experimental cut-ups of words.¹⁶ “[T]he technocratic control apparatus of the United States has at its fingertips new techniques,” Burroughs explains in “The Limits of Control,” “which if fully exploited could make Orwell’s *1984* seem like a benevolent utopia.”¹⁷ Burroughs not only scrutinizes situations where authoritative institutions subjugate individuality and free will in favor of detrimental conformity, but he subverts such power relationships through parodying accepted literary forms as well. His texts lack linear plot, stable characters, and a sense of continuity, in the traditional novelistic sense, and he considered the “forms of prose and plot” to be “themselves experimental acts of revolt.”¹⁸ Instead, his texts are comprised of vaudevillesque routines of “humor and horror combined” which depict acts of parodic depravity.¹⁹ These routines are presented in an experimental form which Burroughs called the cut-up, which he envisioned as a portal into new associations which would jam lines of control transmitted in language through discordant juxtaposition. He explains that the “simplest way” to experiment with the cut-up form “is to take a page, cut it down the middle and across the middle, and then rearrange the four sections.”²⁰ Cut-ups follow in the tradition of literary antecedents like

¹⁶ Burroughs, “The Limits of Control,” 339.

¹⁷ Burroughs, “The Limits of Control,” 339.

¹⁸ Burroughs, *Conversations with William Burroughs*, 11.

¹⁹ Burroughs’s routines often began in correspondence with Ginsberg and can be seen as an extension of the picaresque and satirical genres. In the picaresque genre, a hero undertakes a journey wherein he encounters horrific incidents. Satire employs humorously exaggerated irony to critique social avarice. According to Burroughs’s definition of what his routines aim to accomplish, we can see a literary genealogy in Jonathan Swift’s satires, Raymond Chandler’s hard-boiled detective stories, and Nathaniel West’s grotesques.

²⁰ Burroughs, *The Job*, 29. Clearly his use of this technique was more intricate than this, as his prose is coherent in ways that this splicing would prevent. Burroughs first learned the cut-up technique from Brion Gysin, who was one of his closest friends and collaborators from the late 1960’s through the 70’s, and Gysin picked it up from the Surrealists in 1934. Burroughs’s first experiments were with newspaper cut-ups. He amassed large folders of clippings about nuclear and catastrophic events which he then “folded in” to his own plentiful stockpile of writing, a bounty so vast he dubbed it his “Word Horde.” The fold-in variation involved folding a page of text down the middle and placing it on another text, then reading the composite text.

Tristan Tzara's Dadaism,²¹ T.S. Eliot's *The Waste Land*,²² Jack Kerouac's "sketch method,"²³ and John Dos Passos's Camera Eye sequences in *U.S.A. Trilogy*.²⁴ They should not be conflated with automatic writing and other writing produced using unconscious procedures; instead, cut-ups should be thought of as a straining method for preexisting prose, as diffusing affective tone while sloughing off verbal garbage. The only discernable narrative trajectory apparent in the series loosely involves a conspiratorial group of fiends called the Nova Mob, who gallivant through the routines exerting control through extreme measures like telepathic brainwashing and torture. The heroic protagonists, a group that include Burroughs's textual alter ego, Inspector J. Lee of the Nova Police (ironic considering Burroughs's abhorrence of authority figures), combat "reality-addicts" who depend on a staunchly rigid and binaristic perception of the world.

Burroughs's critique of life repressed by a society of control depends on the shock value of spectacle, which is one way to explain the controversial reception of his novel, *Naked Lunch*. As Guy Debord argued in his 1967 manifesto, *Society of the Spectacle*, American society has passed into a new mode of phenomenological and commercial existence wherein "[e]verything that was directly lived has moved away into a representation."²⁵ Taking Debord's assertion into account when analyzing Burroughs's grotesque routines renders their goal clearer, as the "technocratic control apparatus" Burroughs believes suffuses everyday American society extends

²¹ Tzara's "To Make a Dadaist Poem" instructs its reader: Take a newspaper./ Take some scissors./ Choose from this paper an article of the length you want to make your poem./ Cut out the article./ Next carefully cut out each of the word that makes up this article and put them all in a bag./ Shake gently./ Next take out each cutting one after the other./ Copy conscientiously in the order in which they left the bag./ The poem will resemble you./ And there you are—an infinitely original author of charming sensibility, even though unappreciated by the vulgar herd.

²² In an interview with Burroughs, Eric Mottram notes that "in one sense [Burroughs's work] is a vision of a waste land..." Burroughs, *Conversations with William Burroughs*, 12.

²³ Burroughs became acquainted with this method which Jack Kerouac later elaborated on in "Essentials on Spontaneous Prose" when Kerouac stayed with him in Mexico City. Burroughs, *The Letters of William S. Burroughs: 1945-1959*, 265.

²⁴ Burroughs, *The Third Mind*, 3.

²⁵ Debord, *Society of the Spectacle*, Thesis 1.

beyond institutions like education, law, and medicine, and into mass media, which sees as a pacifying force, an opiate. In adopting his well-worn junkie persona to satirize control by exposing the various ways in which addiction parasitizes the mind, he makes clear that many things are addicting, not just drugs. As Burroughs explains in *Nova Express*, the final book in his tetralogy, the “Garden of Delight is a terminal sewer” and that he was “at some pains to map this area of terminal sewage in the so called pornographic sections of *Naked Lunch* and *Soft Machine*.”²⁶ What he calls a Garden of Delight here is the belief in a particular perception of reality, one which displaces embodied experience in favor of representation. Within his mythology, this perception can be as addicting as heroin since one is no longer engaged in the act of producing reality and instead exists in a state of separation. “The spectacle controls by atomizing the population and reducing their capacity to function as an aggregate force,” as Scott Bukaman explains.²⁷ Though the figure of the junkie predominates in Burroughs’s control cosmology, the larger issue of addiction that he unearths is so pervasive it transcends mere narcotics: we can be money addicts, orgasm addicts, image addicts, control addicts, even reality addicts.

The satirical routines which Burroughs painstakingly renders in *Naked Lunch* and the three following texts are encapsulated in a telling phrase: “insect lust.” This is Burroughs’s term for the end-result of the poor moral standards of a society which prioritizes hollow and dangerous traditions like state executions, war crimes, capitalist victimization, racially motivated lynching, and lobotomies.²⁸ Though this chapter primarily focuses on Burroughs’s use of

²⁶ Burroughs, *Nova Express*, 5-6.

²⁷ Bukaman, *Terminal Identity*, 228.

²⁸ Burroughs’s use of “insect lust” to encapsulate the desires that drive such crimes against humanity recalls Alexander Pope’s similar use of the term in his satirical poetry. “Did Nature’s pencil ever blend such rays,/ Such varied light in one promiscuous blaze?” opines Pope in *The Dunciad*, “Now prostrate!

insectoid figuration, particularly that of the centipede, he deploys other nonhuman creatures to exact his critique of control. As Eric Mottram has noted, Burroughs “invents a range of imagery which reduces humans not only to the insect, but to the Crustacean, the parasite and virus images of human lust.”²⁹ Crustaceans, like crabs and lobsters, and parasites, particularly the kind that bursts from chests like some scene out of *Alien*, certainly do appear throughout Burroughs’s tetralogy, and share with centipedes similar coordinates in his control mythology. Crustaceans appear as parasites which hatch from human hosts, and there are times when the species division between crustaceans and centipedes is dissolved in favor of their arthropodic affinity.³⁰

Detractors of Burroughs’s work dismiss his routines as pornographic projections of a perverted mind. The title of a scathing review after the publication of *Naked Lunch*, which is in many ways a monstrous text designed to assault the reader’s senses with fragmented scenes of vulgar depravity, conveys the disgust of one such critic. In “Ugh,” John Willett writes that *Naked Lunch* induces a “steady nausea” in the reader with its “endless monotony” of such “stereo-typed debris” as centipedes.³¹ Significantly, the book became the target of the last American literary obscenity trial and was lambasted as “brutal, obscene, and disgusting.”³² A Boston court locally banned the book in 1965 despite its several famous literary defenders, including Norman Mailer,

dead! behold that Caroline/...And lo the wretch! whose vile, whose insect lust/ Laid this gay daughter of the spring in dust.”

²⁹ Burroughs, *Conversations with William Burroughs*, 14.

³⁰ In one of the best known passage from *The Yage Letters*, Burroughs explains the effects of yage as like “vast crustaceans [which] hatch inside and break the shell of your body” (44).

³¹ Willett, “Ugh,” 41.

³² *Naked Lunch* was published in 1959 in Paris by Olympia Press, which also published controversial works like Vladimir Nabokov’s *Lolita*. The cover of *Naked Lunch* warned that the book was “not to be sold in the U.S.A. or U.K.” Later that same year, a Chicago literary magazine called *Big Table* published an excerpt, and the U.S. Postal Service refused to deliver the literary magazine. U.S. publication occurred in 1962, when Grove Press released an expanded and revised edition. For more on the literary obscenity trial, see Michael Barry Goodman’s *Contemporary Literary Censorship: The Case History of Burroughs’ Naked Lunch*, Meagan Wilson’s “Your Reputation Precedes You: A Reception Study of *Naked Lunch*,” and Frederick Whiting’s “Monstrosity on Trial: The Case of *Naked Lunch*.”

who hailed Burroughs as “possessed by genius” and Mary McCarthy, who in the *New York Review of Books* favorably compared *Naked Lunch* to “a worm that you can chop up into sections each of which wriggles off as an independent worm.”³³ In 1966, the Massachusetts Supreme Court lifted the ban with the dimly faint praise that *Naked Lunch* had “redeeming social value” after all. Burroughs’s capacity for rendering the reader queasily disoriented not just with his arrangements of words but with the words themselves has oft been commented upon. Close friend and collaborator Brion Gysin admitted that Burroughs’s cut-ups were “sickeningly painful to read” and “had to be wrapped in sheets of lead and sunk in the sea, disposed of like atomic waste.”³⁴ For instance, Daniel O’Hara writes that “to feel even a touch assaulted by *Naked Lunch* is to feel... what the ugly Spirit, as channeled by Burroughs, intends the Gentle Reader to feel, thereby establishing authentic ‘contact,’ a word that, in all its possible senses, is the signal guide to the value system Burroughs maintains throughout his life-work.”³⁵ *Naked Lunch* and Burroughs’s other works rely upon the kind of monotony that Willett criticizes in his critical review. The scenarios involving sodomy, ritual hanging, morbid ejaculation, scatology, and heavy drug use, though they involve different characters, often use the same words or phrases. The various bodily fluids in these scenarios gain agential momentum as the tetralogy progresses not from a linear unfolding of narrated events but from excessive repetition. Ectoplasm jiggles endlessly from all manner of human orifices; heroin tastes electric blue. The senses synesthetically intermingle in Burroughs’s routines in a way produces readerly nausea and vertigo. The style of the cut-ups and the numerous, unpleasant cameos of centipedes and other nonhuman creatures rely upon disgust and disorientation.

³³ “Burroughs’ *Naked Lunch*” in *Burroughs at the Front: Critical Reception, 1959-1989*, 33-39.

³⁴ Miles, *William Burroughs: El Hombre Invisible*, 111.

³⁵ O’Hara, *Narrating Demons, Transformative Texts*, 50-51.

Entomological Horror

Like most of us, Burroughs was in close proximity to insects throughout his life and had occasion to complain frequently enough about them, but he was perhaps exposed more than the average person to their pesky revulsions. In 1943, he was briefly employed as an exterminator, an experience he fictionalized in a short story called “Exterminator!” After Burroughs moved to a citrus and vegetable farm in East Texas in 1947, he frequently grumbled in letters to Allen Ginsberg about invasions of scorpions and centipedes.³⁶ Besides this personal proximity to bugs in several different capacities, Burroughs’s focus on invertebrates and insects typically perceived on an affectively negative spectrum (centipedes in particular) makes sense for two reasons. First, these creatures violate many of the boundaries around which the category of the human is constructed by triggering disgust sensitivities and challenging conceptions about what may appropriately cross the threshold of our boundaries and our homes. Second, Burroughs had a notorious history of drug experimentation, and drugs and bugs are inextricably linked. “Coke bugs” are a hallmark of chronic drug use and drug narratives, a colloquial term describing a form of delusory parasitosis called formication (deriving from the scientific name for ants, Formicidae) which involves the paraesthetic sensation of insects crawling on or under the skin with occasional hallucinations that bugs are crawling on the floor or ceiling.³⁷ Drug-induced delusory parasitosis undoubtedly fueled Burroughs’s earlier insect-centered passages. The thinly

³⁶ In one letter to Ginsberg he wrote that Texas summers brought “king size scorpions. Tarantulas, Ticks, chiggers and mosquitoes are emerging in droves. I killed 10 scorpions yesterday.” Burroughs, *The Letters of William S. Burroughs: 1945-1959*, 13.

³⁷ In *A Scanner Darkly* (1977), an anti-drug novel by the author whose fiction I examine in the next chapter, Philip K. Dick, contains a character named Jerry Fabin who suffers from intense delusional parasitosis. See Jeffrey A. Lockwood’s *The Infested Mind: Why Humans Fear, Loathe, and Love Insects*, and Nancy C. Hinckle’s *Delusory Parasitosis*.

fictionalized passage from *Queer* addressed above describes arthropod visions as a result of heroin hallucinations, and many of the passages involving various insects in *Naked Lunch* were inspired by Burroughs's use of ayahuasca, a powerful shamanic brew made from the *Banisteriopsis caapi* vine which he experimented with during a sojourn to the Amazon rainforest in the 1950s.³⁸

Burroughs specializes in describing the affective state of horror, the aversion it compels, and the resulting disgust and fear that it provokes. Entomological horror is built upon the foundations of disgust (which operates on the laws of contagion and contamination) and its modifying emotion, fear (the anxiety of being taken over or threatened by the object of horror and disgust). There are several domains in which disgust is commonly elicited: food, bodily products, sex acts, hygiene, violations of the "self," death, and animals. Centered on protection of bodily boundaries (including the psychic ones that comprise self-ideation), disgust is supposedly in place because of its evolutionary virtue. Disgust-avoidant behaviors protect us against agents perceived as foreign, external, and potentially hazardous. These foreign agents are unclean, vile, filthy, and we must abject them in order to maintain the purity of our bodily borders lest they contaminate us. Thus, the disgusted person feels defiled by the insect, thinking it has somehow invaded the self. Insects contaminate us and our food, and are themselves hardly considered food for humans in Western society. They bite and sting human bodies, they consume corpses, and for a long time were believed to come from dead bodies.³⁹ At its most basic level,

³⁸ These experiments with ayahuasca, also known as yage, are meticulously documented in Burroughs's letters to Allen Ginsberg in 1953. A selected compilation of these letters was published under the moniker *Yage Letters Redux* in 2006.

³⁹ It was generally accepted up until the mid 1600s that some life forms, but particularly insects, arise from non-living (and usually decaying) matter. The Italian physician Francesco Redi was the first to challenge the theory of spontaneous generation in 1668 by demonstrating that maggots come from the eggs of flies rather than spontaneously arising from rotting meat.

disgust is a protective ideation of the body and “the self.” A crucial aspect of disgust attitudes towards insects concerns an aversion on our part provoked by their morphological difference defined in terms of presence/absence, soft/hard, and inside/outside.

Disgust sensitivities towards insects pertain particularly to what kind of matter is allowed to cross the boundaries we erect around our bodies. Dirt, detritus, and decaying matter all threaten these imposed boundaries, as cultural anthropologist Mary Douglas has articulated, since “some pollutions are used as analogies for expressing a general view of the social order.”⁴⁰ What Douglas means here is that the systems of cleanness and uncleanness we construct around particular categories like insects suggest larger attributes of our own social order. For instance, while American social order excludes entomophagy because it is considered gross and unclean, eating insects is a widely accepted and welcome practice elsewhere. In terms of how we classify animals within such a schema, Douglas astutely points out that we reserve the most extreme rejection for the kind of “unclean animal” that “creeps, crawls, or swarms upon the earth” because their movements are “explicitly contrary to holiness.”⁴¹ Such creatures are abject, to use a term that French feminist theorist Julia Kristeva has deftly deployed in exploring the contours of what constitutes horror. What stimulates such feelings of abjection upon seeing, experiencing, or accidentally consuming such creatures is the sense that it “disturbs identity, system order,” that the borders of a coherent self or system have been contaminated.⁴² Especially since insects are associated with repulsive sights, odors, and textures—sliminess, unnerving skittering, decaying organic matter, refuse, disease, and death—they, too, partake of the abject. In these myriad ways, insects embody the abject; they seem to exist, move, and behave, in ways so alien

⁴⁰ Douglas, *Purity and Danger*, 3.

⁴¹ Douglas, *Purity and Danger*, 56.

⁴² Kristeva, *Powers of Horror*, 4.

to our own. But beyond that, they have the capacity to provoke a sense of defilement, of having crossed paths with a contaminant. Through the powers of associative logic, entomological horror provides Burroughs a powerful portal into exploring those reprobate recesses of the human mind. Applying these insights directly to his particular use of the centipede, however, requires further examination into the origins of his use of centipede imagery.

Burroughs's Appropriation of Centipedal Imagery from Maya Iconography

Centipede and serpent imagery abounded in Maya iconography.⁴³ Centipedes were thought of as a kind of “skeletal serpent,” as Karl Taube explains, which “[resembles] the spine and ribs of a fleshless snake.”⁴⁴ As creatures associated with caves and dank places, centipedes were “widely identified with death and darkness in ancient Mesoamerica” and thus served as a potent symbol of the afterworld.⁴⁵ William Burroughs was originally inspired to utilize centipedes as agents of control because of his experience studying Maya archaeology and culture in Mexico during the 1950s. As Phil Baker explains in his critical biography, “the Mayans became a lifelong interest” to Burroughs, for whom “exoticism” took the form of “pre-Columbian rather than Asian” artifacts which “[included] human sacrifices and the mysterious obscenity of Chimu pottery.”⁴⁶ One image in particular captured Burroughs's attention, which “has its origins in a fragment of a

⁴³ In *The Memory of Bones: Body, Being, and Experience among the Classic Maya*, Stephen Houston, David Stuart, and Karl Taube suggest that the Uxmal Stela depict captives in holes meant to resemble “gaping centipede jaws” (145).

⁴⁴ Taube, “Maws of Heaven and Hell,” 405.

⁴⁵ Taube, “Maws of Heaven and Hell,” 406. Taube asserts that Mesoamerican thought was preoccupied with the night and the underground, a predilection which might in part explain why centipedes—a subterranean predator which lurks in dark, dank places like caves and under logs—might have been so foundationally fascinating to Mesoamericans. Furthermore, Taube surprisingly claims that ancient Maya ideations of the centipede correlate it with the sun and the sun god who is “commonly portrayed wearing a centipede headdress” (410).

⁴⁶ Baker, *William S. Burroughs: Critical Lives*, 23.

Mayan codex of unknown source and time which shows a man tied to a couch as a huge centipede rears over him.”⁴⁷ The image likely originated from Burroughs’s encounter with Sylvanus Morley’s *The Ancient Maya* (1946), which he surely would have encountered in even the most cursory of inquiries. In his analysis of Burroughs’s interest in Maya archaeology, Paul Wild observes that one line drawing from the Dresden codex might have inspired Burroughs, as it depicts a sacrificial victim “tied hand and foot over a rounded stone altar with a cieba tree growing up out of a gaping wound in his chest” and that it is possible Burroughs “could have distorted the cieba tree... as a giant centipede.”⁴⁸ Yet it is the line drawing from a Chichen Itza wall painting that aligns more exactly with how Burroughs deployed centipedal imagery in his texts. The image that I include here more closely fits Burroughs’s own description in *Queer*, and can be found in Morley’s *The Ancient Maya*. The image depicts a nude man restrained by his hands and feet by two men, while a Mayan priest, his status identifiable by his elaborately decorated headpiece, ominously holds aloft an instrument resembling a machete. The most striking aspect of the image, however, is the curving sinew of a looming creature. Upon further inspection, the creature appears ophidian or centipedal, perhaps even wyvernesque since it appears as though it may be breathing fire. Furthermore, the creature stimulates scalar discomfort

⁴⁷ Miles, *William Burroughs: El Hombre Invisible*, 99.

⁴⁸ Wild, “William S. Burroughs and the Maya Gods of Death,” 54. Ellipsis mine.

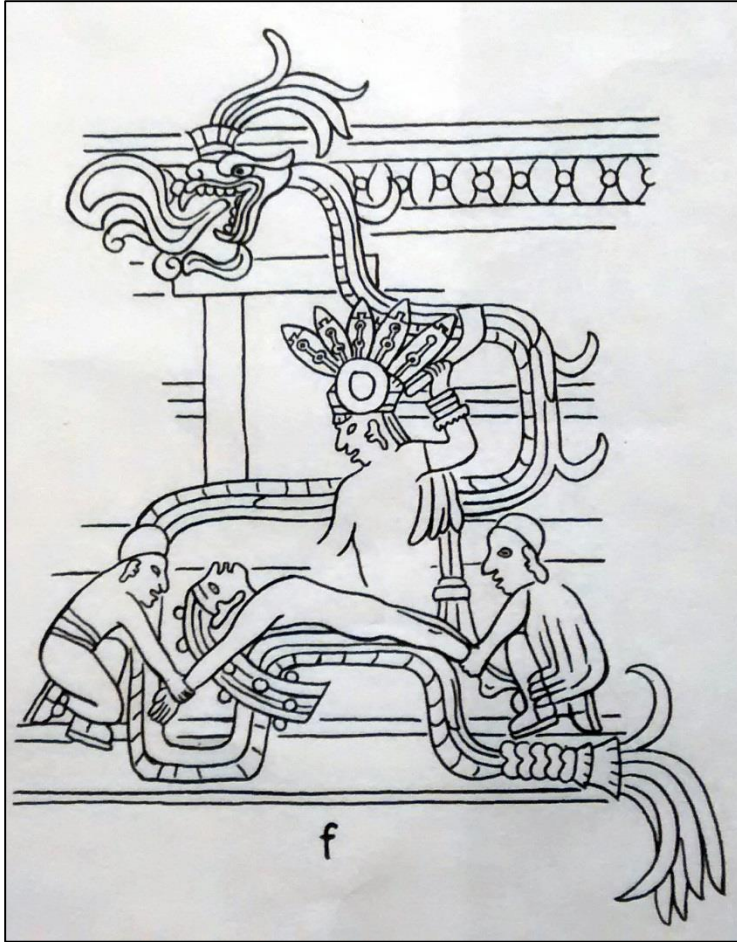


Figure 2.1: A line drawing of a stele from the Chichen Itza Temple of Warriors depicting human sacrifice and centipedal imagery in Sylvanus Morley's *The Ancient Maya*. This image undoubtedly inspired Burroughs's elaborate control cosmology predicated on centipedes and Mayan priests.

about humans being dwarfed by “big bugs” with its looming size.⁴⁹ If this is indeed the very image Burroughs encountered, or at least closely resembles it, the metonymic slippage between centipede imagery, control as an apparatus of power, and Maya priests which Burroughs forges in his texts becomes apparent.

Burroughs's interest in Maya sacrifice and death was particularly located in the role of Mayan priests, whom he believed were adept at exerting societal mind control over their subjects. He surmised that Mayan calendars and codices, which

dictated what subjects should do or feel on any given day, were examples of population regulation and control, and saw similar methods of control reflected in contemporary society since “the mass media of newspapers, radio, television, magazines form a ceremonial calendar to

⁴⁹ As I argued in the last chapter, films like *Them!* (1954), *Tarantula* (1955), *Beginning of the End* (1957), *The Deadly Mantis* (1957), *Earth Versus the Spider* (1958) expressed a cultural anxiety in the mid-century American cultural imaginary about the detrimental effects of radioactivity on the environment, and portrayed mutated, monstrous bugs as exacting revenge on humans for the devastation we have wrought on the environment.

which all citizens are subjected,” and “[t]he ‘priests’ wisely conceal themselves behind masses of contradictory data and vociferously deny that they exist.”⁵⁰

The overlap between Burroughs’s aversion towards centipedes and his fascination with how the priest class of Mayan civilization seemed to be able to control the population without a strong police presence manifested most explicitly in *The Soft Machine*. The text relies upon the disjointedness of cut-up forms to follow a secret agent who jumps back in time to ancient Maya civilization, which Burroughs believed was the historical beginning of the subjugation of the masses through indirect manipulation. Upon arrival, the secret agent finds his thoughts scrambled by the “crushing weight of evil insect control forcing [his] thoughts and feelings into prearranged moulds, squeezing [his] spirit in a soft invisible vice” and makes tape recordings of the “continuous music like a shrill insect frequency that followed the workers all day in the fields.”⁵¹ In describing mind control as of “evil insect” origins and tuned to an “insect frequency,” Burroughs deploys insects as a convenient metaphor for what is loathsome about stripping away human autonomy and free will, since insects are usually considered automaton-like beings driven by blind instinct rather than individualistic desires.

When the secret agent encounters Mayan priests, he discovers that they often don garb which relies upon arthropodic body plans. They dress in “elaborate costumes, often disguised as centipedes or lobsters,” and use the forcipule-like and pincher-like appendages, described as like “white hot copper claws” to tear off captive slave laborer’s genitals.⁵² Not only do the Mayan priests in *The Soft Machine* don arthropodic costumes, presumably because such body plans are not only viewed as disgusting and repulsive but are also intimidating in the hardness of their

⁵⁰ Burroughs, *The Job*, 44.

⁵¹ Burroughs, *The Soft Machine*, 55-56.

⁵² Burroughs, *The Soft Machine*, 55.

carapaces and the potential pain which can be inflicted by the forcipule- and pincher-like appendages, but several sacrificial ceremonial instruments used in the text are centipedal as well. One method, called *Death In The Ovens*, is comprised of interlocked copper grills which are “then heated to white heat and slowly closed on [the] body.”⁵³ Another method, called *Death in Centipede*, which is the “severest sentence of the Insect Court,” requires that the sacrificial victim be “strapped to a couch and eaten alive by giant centipedes,” which resonates the most explicitly with Burroughs’s description of the image he encountered which catalyzed his interest in centipedes as appropriate figures of control for his mythology.⁵⁴ Perhaps the most striking example of how centipedes embody not only unfeelingness but the evils of control comes when the secret agent reports on what he witnessed during some of the executions, where he learned that “giant centipedes were born in the ovens from these mutilated screaming fragments.”⁵⁵ Providing this origin story for the giant centipedes which skitter across the texts renders them the material manifestation of the pain and suffering of those subjugated to control, subtly playing on how it used to be common knowledge that insects sprang forth from decaying organic matter. Here, instead, centipedes spring forth from pained flesh and strained screams, as though they are the very material of the evil effects of control.

Burroughs deploys the same figuration of the centipede as an affectless chasm in his depiction of the various political factions that populate *Naked Lunch*. Liquefactionists, who seek power through eradication of everyone who is not a party supporter, and Divisionists, who seek power in numbers, represent two political factions, but the Senders are the most detrimental faction in the mythology because they seek power through telepathic brainwashing and aim to

⁵³ Burroughs, *The Soft Machine*, 55.

⁵⁴ Burroughs, *The Soft Machine*, 110, 90.

⁵⁵ Burroughs, *The Soft Machine*, 56.

eliminate any divergent thought. Senders are depicted as agents of the Word Virus, and exact control by sending mind control transmissions, but what is most striking about how Burroughs deploys centipede imagery to describe this detrimental political faction is that he relies on an absence of feeling much like that he describes it in the journal excerpts I examined in the introduction to this chapter.

A telepathic sender has to send all the time. He can never receive, because if he receives that means someone else has feelings of his own could louse up his continuity. The Sender has to send all the time, but he can't ever recharge himself by contact. Sooner or later he's got no feelings to send. You can't have feelings alone. Not alone like the Sender—and you dig there can only be one Sender at one place-time... Finally the screen goes dead... The Sender has turned into a huge centipede... So the workers come in on the beam and burn the centipede and elect a new Sender by consensus of the general will.⁵⁶

Much like how Burroughs depicts Mayan priests as controlling the population through indirect manipulation and brain-scrambling transmissions, the telepathic sender is described as debased in his humanity by only ever sending and never receiving. The transformation is brought out by the gradual siphoning of what Burroughs considers an integral aspect of what it means to be human: the ability to communicate reciprocally.

Possession and the Parasite: Metaphorizing Language as the Ugly Spirit

Parasitism, the possession of a host, is aligned with Burroughs's concern for how words are a virus which infects and invades, a notion through which he explores the mechanisms of agency, autonomy, and free will. How do subjects come to accept as their own idea something which has been introduced by an external agent, through strategies as sinister as brainwashing and autonomic shaping, or as ubiquitously mundane as television advertisements? With this question in balance, Burroughs explores the line between what we consider intimately internal and what

⁵⁶ Burroughs, *Naked Lunch*, 137.

we see as an alien agent which invades from without through the concept of possession and its metaphysical implications.

My concept of possession is closer to the medieval model than to modern psychological explanations, with their dogmatic insistence that such manifestations must come from within and never, never, never from without...I mean a definite possessing entity. And indeed, the psychological concept might well have been devised by the possessing entities, since nothing is more dangerous to a possessor than being seen as a separate, invading creature by the host it has invaded.⁵⁷

Preferring a “medieval” conception of possession, conceived of as demonic possession by an external and invading entity, rather than modern psychology, which would favor talk of “inner demons,” Burroughs suggests that words infect and mutate humans but survive by convincing us, their hosts, that the relationship is not parasitic but symbiotic. Burroughs satirizes the idea that words are an invading force by considering a juridical scenario called the Oxygen Impasse in the “This Horrible Case” routine from *Nova Express*, in which survival requires Life Form A’s parasitic occupation of Life Form B. When Life Form B eventually realizes that Life Form A has invaded it, it brings action in the Biologic Courts, “demanding summary removal of the alien parasite.”⁵⁸ The Biologic Courts are a future legal system predicated upon a legal system of biological conflict resolution in which it becomes necessary to adjudicate the claims of competing life forms jostling for the right to exist in a crowded universe. The routine tracks the progress of the Nova Mob trials after the Heavy Metal Kid has brought suit against them, seeking to challenge the right of an organism to occupy a host on the grounds of “absolute need.” The case is judged according to the Oxygen Impasse precedent, as it is the “classic case” of the “intricacies and apparent contradictions of biologic law.”⁵⁹

Life Form A arrives on alien planet from a crippled space craft... [and] breathes “oxygen”—
There is no “oxygen” in the atmosphere of alien planet but by invading and occupying Life Form

⁵⁷ Burroughs, *Queer*, 132.

⁵⁸ Burroughs, *Nova Express*, 133.

⁵⁹ Burroughs, *Nova Express*, 133.

B native to alien planet they can convert the “oxygen” they need from the blood stream of Life Form B—The Occupying Life Form A directs all the behavior and energies of Host Life Form B into channels calculated to elicit the highest yield of oxygen—Health and interest of the host is disregarded... For many years Life Form A remains invisible to Life Form B by a simple operation scanning out areas of perception where another life form can be seen—However an emergency a shocking emergency quite unlooked-for has arisen—Life Form B *sees* Life Form A... brings action in The Biologic Courts alleging unspeakable indignities, mental and physical cruelty, deterioration of mind body and soul over thousands of years...⁶⁰

This passage exposes Burroughs’s thinking about how parasitism works among organisms as well as the associative logic which undergirds his cut-up experiments. Life Form A and Life Form B are switched out to test the case between the Nova Mob criminals, who have gallivanted across the universe wreaking havoc, and the Heavy Metal Kid, who wishes to bring charges for the damages they have caused. Going even further, Life Form A can easily be replaced by the word and Life Form B with the human host, as Burroughs saw language as an agential and vital force with inclinations and desires of its own. Burroughs’s conceptualization of the relationship between the “Word Virus,” or, as he sometimes interchangeably called it, the “Ugly Spirit,” and humans as a host harboring parasitic language was deeply informed by two important life events.

Throughout his writing career Burroughs recalled an incident that occurred when he visited an Egyptologist at the University of Chicago in 1939, due to his interest in Egyptian hieroglyphics. He remembers the experience as his “first clear indication of something in [his] being that was not [him], and not under [his] control,” and came to think of it as the quintessential example of the power of intrusive thoughts which seem to come from outside the self. He remembers a voice, seemingly from nowhere yet somehow inside his head, screaming into his ear “YOU DON’T BELONG HERE!”⁶¹ His sense of something both internal and external, a part but not a part of the self, occurs even more vividly in the introduction to his early

⁶⁰ Burroughs, *Nova Express*, 133-34. Ellipsis mine.

⁶¹ Burroughs, *Word Virus*, 93.

semi-autobiographical *Queer* in which he describes his past as “a poisoned river” suffocating his writing.⁶² The past event which Burroughs obliquely references here is most likely his fatal shooting of companion Joan Vollmer in a drunken William Tell performance gone horribly awry in 1951.

Possession by an invasive, controlling force is central in Burroughs’s description of how he became a writer.

I am forced to the appalling conclusion that I would never have become a writer but for Joan’s death...I live with the constant threat of possession, and a constant need to escape from possession, from Control. So the death of Joan brought me in contact with the invader, the Ugly Spirit, and maneuvered me into a lifelong struggle, in which I have had no choice except to write my way out.⁶³

It is striking that in this explanation Burroughs does not describe the fatal shooting as an event in which he had an active role. Instead, the fatal shooting becomes “the death of Joan.” Joan’s death and what Burroughs calls the “Ugly Spirit” are granted much more agency in this passage than Burroughs grants himself. The Ugly Spirit maneuvered and Joan’s death brought him into contact with the Ugly Spirit; both verb choices convey purposeful intentionality on the part of the doer. Burroughs, by contrast, describes himself as lacking any agency in the matter; he is “forced” to a conclusion, needs to “escape from possession” and has “no choice.” When publishers pressured Ginsberg to convince Burroughs to expand upon the details of Joan’s death, Burroughs expressed reluctance: “I do not see how that could be worked in...I will take care of her disappearance.”⁶⁴ Burroughs finally admits in a later letter to Ginsberg that he has a fundamental fear of what writing about the incident might kindle.

⁶² Burroughs, *Word Virus*, 92.

⁶³ Burroughs, *Queer*, 135.

⁶⁴ Burroughs, *The Letters of William S. Burroughs: 1945-1959*, 118.

I suspect my reluctance is not all because I think it would be in bad taste to write about it. I think I am *afraid*. Not exactly to discover unconscious intent. It's more complex, more basic and more horrible, as if the brain *drew* the bullet toward it.⁶⁵

What Burroughs describes here as well as in his bizarre experience in the Egyptology Department at the University of Chicago is the intrusion of involuntary thought, which he attempts to deal with by transforming into an invading parasite. His feeling of being afraid lies not in the discovery of his own machinations, his own “unconscious intent,” but rather, what he imagines to be the propulsive force with which “the brain *drew* the bullet toward it.” Perhaps Burroughs is merely suggesting that Joan had a death wish, as anyone willing to engage in a real-life William Tell performance might, but again it is striking the lengths to which Burroughs manipulates language so that he is the passive agent upon which the events of quasi-agential forces exert their control. Burroughs configures the event as though Vollmer's brain and his gun's bullet are agential forces in tension with one another, acknowledging on the one hand the very real way in which this resulted in the fatal accident (indeed, the bullet did enter Vollmer's brain and kill her, and Burroughs did pull the trigger), but on the other hand depersonalizing and diffusing his traumatic memory of the event by seemingly abdicating himself of responsibility for Joan's death by attributing it to invasion by an Ugly Spirit.⁶⁶

The parasite model of possession which Burroughs elaborates in these two key life events and in the “The Horrible Case” routine from *Nova Express* depends upon entomological horror. As I acknowledged earlier in this chapter, the centipedal imagery he deploys is slightly different

⁶⁵ Burroughs, *The Letters of William S. Burroughs: 1945-1959*, 263. Emphasis original.

⁶⁶ “The idea of shooting a glass off her head had *never entered my mind*, consciously, until, out of the blue so far as I can recall—I was very drunk, of course—I said: ‘It's about time for our William Tell act... Put a glass on your head Joan.’ Nothing led up to the idea. From then on I was concentrating on aiming for the *very top of the glass*. Note all these *precautions* as though *I had to do it* like the original William Tell. Why, instead of being so careful, not give up the idea? Why indeed? In my present state of mind I am afraid to go too deep into this matter.” Burroughs, *The Letters of William S. Burroughs: 1945-1959*, 133-34. Italics original.

from his parasitic model of thought. However, there are certainly affinities between the two, since both depend on key features of entomological horror, especially the fear that something foreign to the body will invade it and take over. Capitalizing on such fear in the form of insects manipulating human hosts to hatch or otherwise progress through their metamorphic stages, Burroughs at numerous points imagines centipedes in such a role. In his description of a fictional terminal disease called the Crusts, he envisions centipedes hatching from human bodies.⁶⁷ Revisiting the disease in a fragment from his journal, Burroughs describes someone afflicted with the Crusts as “collapsed on the bed” while “something [stirs] in his spine from neck to the tail—and now pieces tore loose in the eggs and then a red, glistening head emerges in reeking yellow slime—and then the whole centipede, crawling out quick.”⁶⁸ The grotesque scene which Burroughs imagines here shares echoes with the short story “Bloodchild” by Octavia E. Butler which I examine in a later chapter, though Butler’s aim in envisioning grubs hatched from human hosts is to think about intimate affinities with alien entities who require humans to barter their bodies in exchange for continued survival. Burroughs’s aim is quite different: though he may draw from entomological horror similarly to Butler, such fantastical orchestrations as the Crusts metonymically slip towards considering issues of possession, control, and language.

The Complete American De-anxietized Man

I close this chapter with one last example of how Burroughs deploys centipede figuration to suggest how institutional structures of power degrade individual human autonomy. In the routine from *Naked Lunch* called “Meeting of International Conference of Technology Psychiatry,” Burroughs creates a satirical caricature of the worst end result of unethical medicine. Dr.

⁶⁷ Burroughs, *Yage Letters Redux*, 84-85.

⁶⁸ Burroughs, *Last Words*, 18.

“Fingers” Schafer, the Lobotomy Kid, one of the more recognizable characters from Burroughs’s oeuvre, presents a human being on whom he has been experimenting to his colleagues as what he calls his “Master Work,” *The Complete American Deanxietized Man*. The supposedly perfect human being has had his nervous system “reduced” so as to be “relieved” of human emotions like anxiety. The slow siphoning away of attributes considered integral to being human is clear in the routine. Even the brain becomes vestigial and as unnecessary as “the adenoid, the wisdom tooth, the appendix.”⁶⁹ As soon as Schafer unveils his new and improved model of an American citizen, “the Man wriggles” and “[h]is flesh turns to viscid, transparent jelly that drifts away in green mist, unveiling a monster black centipede.”⁷⁰ The routine fades from the medical conference proceedings to a courtroom where Schafer is now on trial for having “wantonly slain” an “innocent human creature” with unethical medical practice, alongside myriad other atrocities including performing lobotomies on so many people that there now exist “great warehouses with row on row... of helpless creatures” called “Drones.”⁷¹ Though Schafer justifies destruction of the centipede by claiming that it will save the human race, the routine closes with the centipede alive and well, “rushing about in agitation.”⁷² As with the telepathic sender’s transformation into a repulsive centipede, the Complete American Deanxietized Man’s transformation is dependent upon removal of human emotions. Burroughs’s reliance upon the centipede, which he positions as a creature completely lacking in the ability to reciprocate a gaze or express affection, operates in this passage as a reminder of how abjection of animality, and more particularly, “simpler” and subsequently more inferior forms of life, shores up humanness.

⁶⁹ Burroughs, *Naked Lunch*, 87.

⁷⁰ Burroughs, *Naked Lunch*, 87.

⁷¹ Burroughs, *Naked Lunch*, 88. Ellipsis mine.

⁷² Burroughs, *Naked Lunch*, 88.

As an emblem of the evils of misused authority, Burroughs's centipede figuration fluctuated in terms of how it manifested and towards what end, but what it stands for in his larger mythology of control is unwavering. Wherever it surfaces in his texts, it signals the debasement of humanity, the slow siphoning of the capacity to feel a full range of emotions. In his routines of "humor and horror combined," Burroughs points a mocking finger at the cultural institutions responsible for this debasement. Insects are often thought of as conditioned reflex machines driven by blind instinct; if they happen to be social insects, their blind drive renders them devout followers of their hive, mound, or heap. If viewed through an anthropomorphizing lens, such conditioning can potentially be interpreted as participation within a community of like beings. Such belonging is less threatening because we can see something of ourselves in it, even as we question the mechanisms which undergird, or, in some cases, compel, affinity with a larger group. But the centipede is just too far across the affective abyss to stand for any kind of human salvation. The various humans which transform into centipedes, the Mayan priests, figures of powerful subjugation of citizens in his routines, don centipede costumes and sacrifice citizens using instruments which resemble centipedes or utilize man-eating centipedes; all of these examples reduce humans to what is considered a lower and repulsive form of life, to a mindless and totally conditioned, and in some cases, sacrificed, citizen.

Chapter Three

Inconspicuous Life and Empathic Identification in Philip K. Dick's *Do Androids Dream of Electric Sheep?*

Philip K. Dick's narratives of insect encounter offer a guide to the larger map by which he charted the ontological difference between instinct and intelligence, between being "written through" and "writing" one's own life, "in the sense that all creatures from grasshoppers on up, in particular small creatures... are 'written through' by what we call instinct, rather than 'writing their lives.'"¹ For Dick, insects revealed the multifaceted and troubled boundary between life and non-life, what counts as such, and who gets to adjudicate those measures. He believed that the brutal lives of insects necessitate our compassion, while exhibiting some of the most banal cruelties life has to offer. By turning his attention to microcosms ruled by survival and struggle that abound around us, Dick forges an imaginative doorway onto the psychological contours of humanity. He took pains, for example, to imagine the inner mind of a spider that waits for its prey, increasingly afraid that it might never come.

Spiders frequently appear in Dick's oeuvre as agents of good deserving of empathic identification. In "Expendable," a short story from 1953, an unremarkable protagonist finds himself embroiled in an age-old territorial battle between his human ancestors and the original inhabitants of Earth—ants. Spiders feature as surprising allies in the story. Dick originally titled

¹ Dick, *The Exegesis of Philip K. Dick*, 144.

the story “He Who Waits.”² The disparity between Dick’s title and the one ultimately created by the publishers registers the idiosyncrasy of Dick’s position in regards to insects and related arthropods. Whereas the title “Expendable” recognizably plays upon a reversal of the diminished significance we accord to insects—it is not insects but rather humans that are expendable in the end, and the title “pops” precisely because of shared cultural understanding of insects as expendable—the title “He Who Waits” instead coheres with Dick’s larger philosophical purview which designates insects as expectant, anticipatory, possessing desires capable of being frustrated. The spider that waits is a theme Dick returns to in his personal correspondence:

I have various spiders who live both inside the house and outside... I notice little spiders with little webs— about the size of a teacup— and there at the rim of the web the spider waits, hoping something will come. In some cases something does come, but often nothing comes. Days go by, day after day. I wonder what the spider thinks. Does it begin to lose hope? Is there a point at which it realizes that it’s too late, that it’s all over? That nothing is ever going to come? I think to myself that every day when nothing comes the spider begins to become afraid. Each day it’s more afraid, until finally its fear turns to despair. The idea of something that small feeling fear and then despair... and no one notices it. One day finally it’s dead.³

In this striking meditation on the existential interiority of the spider as it waits for its prey, Dick first situates himself as one who notices a microcosm which no one would usually notice, and then performs an act of sympathetic magic by projecting onto the spider his own conception of what it might think or feel.⁴ Easy critique of blatant anthropomorphism aside, this passage reveals much about Dick’s thought process. Upon observing these arachnid worlds-in-miniature, Dick questions what the bug must feel like, and whether it experiences similar disappointments

² Dick admitted that he was “puzzled by the new title” and confused about its relevance. See PKD letter to Anthony Boucher, May 18, 1953. Dick, *The Selected Letters of Philip K. Dick: 1938-1971*, 29.

³ Dick, *The Selected Letters of Philip K. Dick: 1938-1971*, 220.

⁴ Dick even took enough notice of these teacup-sized cosmos that he once kept the company of a spider named Walt. PKD letter to Tandy Rubenstein, March 3, 1967. *The Selected Letters of Philip K. Dick: 1938-1971*, 202. Additionally, his third wife Anne recalled fondly in her memoir of their marriage, that “Phil loved spiders and was always telling me that they were mankind’s friend.” Dick, *The Search for Philip K. Dick*, 258.

as his in the world. In juxtaposition to Dick's sympathy for the patient spider, the ant cuts a more ambivalent profile, even though he identifies with it, too.

Dick framed the ant according to peculiarly contradictory gender dynamics: on the one hand, the ant's instinctual drives were a way of understanding his own male compulsions and desires; on the other hand, the ant's seeming inability to feel or reproduce (unless the ant were the queen) emphasizes the lack he imagines a female android might experience. In a relatively unexamined nonfiction essay (a genre unusual for Dick), he explores his own ant-like fascination—both in his life and in his narratives—with cruel, intelligent women. He likens himself to an ant in his blind attraction to this particular type of woman, *la belle sans merci*, who is “cold, very intelligent, beautiful, just utterly heartless.”⁵ Not only does Dick describe his behavior as ant-like—drawing from a view of the insect as fated to mindlessly reiterate the same action, unable to adapt to circumstance or learn from prior experience—but he renders these “destructive women” as ant poison.⁶ Whereas Dick applied this ant metaphor autobiographically in order to dredge up what is reflex-like and unthinking in his own personal desires, he transmutes this metaphor in his fictional representations of female androids (which are themselves carry-overs of the autobiographical “dark-haired women”). In juxtaposition to how Dick describes his desirous compulsions as excessive reflex, the ant-ness of female androids in his narratives is centered on reproductive lack and identicalness. In *Do Androids Dream of Electric Sheep?*, in a scene where bounty hunter Rick Deckard and female android Rachael

⁵ Dick, “The Evolution of a Vital Love,” 46.

⁶ Dick always meant this to be a two-volume project, with the second focusing on this more abyssal character, the android. What remains of his forays into this sequel further reveal the connection between the android and the mantis. Buried in Philip K. Dick's manuscripts at CSU Fullerton are two leaves labeled “false start” entitled, “The Mantis: A Flight from the Reflex Machine,” along with a note from Dick explaining that it was never written because “the author could not bring himself to write about something so objectionable. Thus the work ends here.” Box 5, Folder 3. Philip K. Dick Manuscript Collection, CSU Fullerton, University Archives & Special Collections.

Rosen prepare to bed one another, Rachael laments her machine status as just “representative of a type,” just “stamped out like bottle caps.”⁷ Attempting to salvage the moment of seduction, Deckard retorts that “[a]nts don’t feel like that and they’re physically identical” to which Rachael replies that ants don’t feel at all.⁸ When Rachael half-nakedly clambers onto the bed she morosely inquires whether or not it is a loss that androids cannot bear children and returns to Deckard’s ant evocation: “We’re not born; we don’t grow up; instead of dying from illness or old age, we wear out like ants. Ants again; that’s what we are... Chitinous reflex-machines who aren’t really alive.”⁹ Dick’s description of his autobiographical desires as ant-like for their excessive drive contrasts starkly with Rachael’s doleful realization that her identity is mere illusion and her machineness more insectoid than human. Although Dick deploys the ant as an ambivalent metaphor for the illusion of individuality and free will in these examples, his overall approach towards insects as an entire class of creatures remains remarkably empathetic.

In his later exegetical writings and interviews, Dick returns to a childhood moment of intense sympathetic identification with a beetle and, perhaps hyperbolically, pinpoints it as the catalyst for “a lifetime of work and insight.”¹⁰

It was taking refuge in an empty snail shell. He’d come out of the snail shell and I’d mash at him with a rock, and he’d run back into the snail shell. I’d just wait until he’d come out. And he came out, and all of a sudden I realized—it was total *satori*, just infinite, that this beetle was like I was. There was an understanding. He wanted to live just like I was, and I was hurting him. For a moment... I was that beetle. Immediately I was different. I was never the same again. I was totally aware of what I was doing, I was just transformed.¹¹

⁷ Dick, *Do Androids Dream of Electric Sheep?*, 189.

⁸ Dick, *Do Androids*, 189.

⁹ Dick, *Do Androids*, 193-94.

¹⁰ Dick notes that the experience was as if “[a]ll illusion dissolved away like a soap bubble and [he] saw reality at last. “We are talking about a lifetime of work and insight: from my initial *satori* when, as a child, I was tormenting the beetle. It began in that moment, 40 years ago.” Dick, *The Exegesis of Philip K. Dick*, 826. Italics original.

¹¹ Dick, *Philip K. Dick: In His Own Words*, 47-50.

Recalling with crystalline vividness this moment some forty years in the past, Dick recognizes that he and the beetle exist on a similar plane—both wishing to live—and describes himself as transformed by the recognition that he has no business threatening another creature’s life for mere pleasure. Though he cannot ever know with absolute certainty the interiority of the beetle, except through an act of creative anthropomorphism, he recognizes enough to know he should leave it alone. As with the expectant spider, the bullied beetle is a fellow creature to which empathy must be extended, even if it might be said that the beetle lacks empathy itself. The insect cosmos usually escapes human notice, much less concern. Dick not only notices what we may share in common with life forms that initially seem so alien from our own, but renders such recognition a necessary exercise in projective empathy.

Several months before *Do Androids Dream of Electric Sheep?* was published, Dick peppered his correspondence with references to Robert Frost’s “A Considerable Speck.”¹² Dick’s penchant for this poem, particularly at the time he was composing *Do Androids Dream*, reveals one of the central tenets of his philosophy: empathy towards all living creatures, particularly the small and inconspicuous ones. In a letter sharing this poem with confidante Cynthia Goldstone, Dick comments, “When I see some small bug making its way across the table I think to myself, ‘It wants as strongly as I want. It is capable of feeling afraid as I am.’”¹³ In Frost’s poem, the speaker documents a terror-stricken mite’s journey across a freshly inked manuscript. After resisting the initial urge to dash the mite with his pen, the speaker recognizes the mite instead as an “unmistakable living creature” which might have “inclinations it could call its own” and instead allows “it [to] lie there till I hope it slept.”

¹² “A Considerable Speck” was first published in the *Atlantic Monthly* (July 1939) and later collected in *A Witness Tree* (1942).

¹³ PKD letter to Cynthia Goldstone, September 14, 1967. Dick, *The Selected Letters of Philip K. Dick: 1938-1971*, 219.

Even as Dick imagined insects as footmen of the threshold between instinct and imagination, reflex and desire, he saw in their strange capacities a powerful way to caution against the dangers of a life without empathy. Dick instantiated these cautions in his conception of the android as a “reflex machine.”¹⁴ A psychological metaphor he uses to reference our own understanding of the limits of humanity, the “reflex machine” places empathy at the core of what it means to be human. In *Do Androids Dream*, the capacity for empathy is tested through ethical dilemmas involving the value of life (particularly animals, with a special focus on insects.)

Throughout this dissertation, I have argued that insectoid figuration offers a useful alternative map for nonhuman sensoriums and affects. I have asked what is to be gained, and more importantly, what is elided, by mammalian-centric understandings of matter, agency, and life. I further claim that insectoid figuration can reveal much about how construction of the category of the human relies upon the abjection of animality through triumphalist exceptionalism about our own affective capacities. Empathy, the focal point of this chapter, is one such affective capacity often touted as unique to humans alone. Here, I argue that Dick’s psychological metaphor of the android as reflex machine is deeply influenced by the insectoid in two important ways. First, the metaphor is grounded in patterns of mimicry and predation linked explicitly to insect behavior, a conceptual connection as yet unexamined in Dick scholarship. Second,

¹⁴ An android is a robot, or synthetic organism, designed to appear human. From the Greek root “man” and suffix “oid,” meaning to have the form or likeness of, androids were still largely the domain of science fiction when Dick wrote *Do Androids Dream of Electric Sheep?* While Dick laid claim to a particular philosophical take on the android, he is certainly not the first to employ the term. Its first literary use was in 1886, by French author Auguste Villiers de l’Isle-Adam in *Tomorrow’s Eve*, and the distinction between mechanical robots and fleshy androids was popularized by Edmond Hamilton’s *Captain Future* series (1940-1944). Karel Čapek introduced the word “robot” with his 1921 play *R.U.R. (Rossum’s Universal Robots)*—though robots in the play were organic artificial humans, the term has come to primarily refer to mechanical humans, animals, and other beings. While there is clearly some overlap in this terminology, an android is most often referred to as a mechanical creature which takes on human appearance, in behavior and affect.

although Dick champions humans (possessed of the ability to feel) over androids (rendered insect-like for their inability to feel) he paradoxically drives this point home by frequently centering on narrative moments involving empathy, or lack thereof, towards insects. I draw primarily from Dick's 1968 novel, *Do Androids Dream of Electric Sheep?*, which offers a postnuclear dystopia wherein electric animals, sentient androids, and mutated humans all coexist in a world culturally mediated by nostalgic mourning for extinct animals and technologically mediated by empathy boxes and mood organs. Though scholars have paid much attention to the role that androids play in Dick's overall oeuvre, strangely few have noticed the profound role of animals in the crafting of this android metaphor and no critic has yet elucidated the integral role that insects play.¹⁵

Electronic Animals and Postextinction Nostalgia

One of the central themes of *Do Androids Dream of Electric Sheep?* is the blurring of boundaries between human and android in a society where technology increasingly pervades every aspect of life. Dick's ontologically paranoid plot vividly queries what makes the human human through a series of emotional Turing tests and in so doing displaces comfortable assumptions in favor of deep skepticism. In this dystopic vision of postnuclear 21st century Earth, division between natural and artificial has almost completely broken down. Society is dominated by a single religion called Mercerism which centers on the sacredness of life, which at the novel's end is revealed as perhaps nothing more than an elaborate hoax. Users connect to one another through

¹⁵ Only two scholars have delved directly into the role of animals in *Do Androids Dream of Electric Sheep?*. Sherryl Vint comments briefly on the issue in *Animal Alterity: Science Fiction and the Question of the Animal* (30-32), and in more depth in "Speciesism and Species-Being in *Do Androids Dream of Electric Sheep?*" Ursula Heise dedicates a paragraph in her *PMLA* article "The Android and the Animal" to the topic.

black boxes called “empathy boxes”—they are, as one character puts it, “the most personal possession you have...an extension of your body... the way you touch other humans...the way you stop being alone.”¹⁶ In the wake of World War Terminus, a war whose catalyst no one seems to remember, mass emigration is incentivized by the promise of a mechanical slave on the order of a space-age antebellum South; most accept this offer with the “android servant as carrot” and “radioactive fallout as stick.”¹⁷ Those few who remain on Earth risk “finding [themselves] abruptly classified as biologically unacceptable, a menace to the pristine heredity of the race” because of diminished physical and intellectual capacities that result from remaining behind in the contaminated radioactive dust.¹⁸ Effectively considered quasi-human, humans affected by radioactivity are relegated to low status in a morally discriminatory class system. This is made especially clear by the terminology used to refer to them: they are “specials,” or, more pejoratively, “antheads” or “chickenheads.” The derogatory use of “anthead” and “chickenhead” to refer to diminished mental capacity is especially paradoxical in light of the elevated status of animals, and especially insects. Even though animals have elevated status in this society, they are still creatures who must be stewarded and carefully maintained, rather than creatures in their own right that deserve freedom or a wild environment.

The narrative of *Do Androids Dream* spans a single day, during which bounty hunter Rick Deckard sets out to “retire” (a euphemism for exterminate) six escaped Nexus 6 model androids that have fled slavish conditions on the Mars colony. Though their initial efforts to pass as human prove successful, as one becomes a renowned opera singer and another a police inspector, they have been detected and their very presence on Earth serves as justification

¹⁶ Dick, *Do Androids Dream*, 66.

¹⁷ Dick, *Do Androids Dream*, 16.

¹⁸ Dick, *Do Androids Dream*, 16

enough for their eradication. A “special” named J.R. Isidore befriends one of the androids and later ends up harboring her and the other remaining androids. In order to identify these refugees, Deckard administers a psychological test called the Voigt-Kampff Empathy Test. Human identity is measured by empathetic response to social scenarios, many of them involving the ethical treatment of animals, and especially insects. The apparatus measures responses similarly to a polygraphic lie detector by identifying and recording eye-muscle and capillary reaction in response to shocking stimuli which provoke the “blush” response. Though presumably all humans can pass the test easily, androids stumble.

When Deckard administers the test to his first subject—Rachael Rosen—he first poses a scenario about receiving a calfskin wallet for her birthday, and the gauges register Rachael’s violently negative response. In order to calibrate his results, Deckard turns to insect scenarios. He offers: “You have a little boy and he shows you his butterfly collection, including his killing jar.”¹⁹ Rachael responds that she would take the little boy to the doctor, and “the twin gauges registered, but this time not so far.”²⁰ After observing this reaction, Deckard follows up with another insect-related scenario: “You’re sitting watching TV... and you suddenly discover a wasp crawling on your wrist.”²¹ Rachael responds that she would kill the wasp, and this time the gauges “registered almost nothing: only a feeble and momentary tremor.”²² The calfskin wallet elicits a violent reaction even though the animal’s death is commodified and removed from direct view through mass production. The insect-related scenarios that directly represent death do not register as strongly for Rachael, despite this society’s belief that all insects are sacrosanct.

¹⁹ Dick, *Do Androids Dream*, 49.

²⁰ Dick, *Do Androids Dream*, 49.

²¹ Dick, *Do Androids Dream*, 49.

²² Dick, *Do Androids Dream*, 49.

Deckard's initial tests may have us questioning whether or not we ourselves would pass the Voigt-Kampff Empathy Test. In the first scenario, the little boy seeks out and massacres his horde, and the butterfly killing jar is a prefabricated site designed for organized death upon capture. The boy's collection speaks to the serial quality of his behavior, even though in our own society we would easily pass this off as childhood entertainment. The wasp landing on one's arm can be interpreted as an aggressive act which must be defended against, for and with the human body. It may elicit little empathy since the arm becomes both the site and the justification for death, and the human body the radius, the killing field, which justifies the exterminating logic.

The limitations of language as a frame for such determinations are further exposed in a subsequent interrogation of another android Deckard pursues. When Deckard administers the test to the opera singer android Luba Luft, she has difficulty understanding what "wasp" means because of her ostensibly German descent. When Deckard translates "*ein Wasp*," Luba still struggles to understand the relevance of the scenario. Wasps have been extinct for a long time, and any meaning rendered, physiologically or otherwise, by necessity must be an abstract concept based on a culturally mediated response to a theologically-inflected mass mourning of animals. Indeed, the legitimacy of the Voigt-Kampff Empathy Test is questioned early in the novel: it is not clear that it will work on the new Nexus 6 models, or even if some humans would pass the test, especially schizophrenic patients exhibiting a "flattening of affect."²³ Though empathy is held up as the absolute threshold between android and human, it may not necessarily hold as a firm demarcation in the novel.

The novel opens on android bounty hunter Rick Deckard awakened by a "merry little surge of electricity piped by automatic alarm from the mood organ beside his bed."²⁴ Deckard

²³ Dick, *Do Androids Dream*, 37.

²⁴ Dick, *Do Androids Dream*, 3

and his wife, Iran, must then dial for their moods on their Penfield mood organs.²⁵ A morning squabble quickly unfolds over Deckard's refusal to grant validity to Iran's need to feel depression, though she reasons with Deckard "how unhealthy it [is], sensing the absence of life, not just in [the] building but everywhere, and not reacting."²⁶ Even in this quotidian morning routine, the category of the human is under assault. The ostensible authenticity of free will is undermined, or at least complicated, by emphasis on the agencies of other forces external to the body: moods are dictated by dials, and electricity propels Deckard to wakefulness. Furthermore, Iran's desire to feel appropriately depressed about the emptiness surrounding her threatens the system put in place by mood-regulating apparatuses: this system, dependent on mood organs to shut out negative feelings even when appropriate to the circumstances by dialing for whatever suits, undermines the way in which empathy is shored up as the distinguishing factor between human and android. Androids are accused of not exhibiting the appropriate affect towards creaturely life, towards one another, and towards social situations especially regarding care and treatment of animals. Though they may express these feelings convincingly, they do not feel these feelings accordingly. In a world where such "absence of appropriate affect" has become the justificatory grounds for exterminating androids, we as readers may question the validity of Deckard's reasoning in the morning squabble with Iran over the extraneousness of her desire to match her affect to the emptiness, the "absence of life," around her. Iran's early mention that this paucity of feeling used to be considered symptomatic of mental illness in humans introduces a

²⁵ Dick named the mood organs after neurosurgeon Wilden Penfield (1891-1976), who is best known for mapping the sensory and motor cortices of the brain, and discovering links between these cortices, limbs, and organs. During his early career Penfield studied epilepsy and stimulated the brains of conscious patients with electricity and then waited to see how they responded.

²⁶ Dick, *Do Androids Dream*, 5.

first instance of readerly uncertainty over the validity of the Voight-Kampff Empathy Test as a measure for ascertaining android extermination.

In Mercerism, users jack into empathy boxes to participate in a collective consciousness based on the suffering of Wilbur Mercer. Mercer is a messiah-like simulated figure who extols the intrinsic value of all living creatures and has the ability to bring animals back from the dead, which is the ultimate divine power in a society where animals *en masse* are mostly extinct. Mercerites commune with Mercer by grasping the two handles of the empathy box in order to witness him toil up an endless hillside while stones are pelted at him by unseen forces, and they share in his suffering by experiencing the pain of the blows. The most important doctrine of Mercerism is care for animals. Mass animal extinction was one of the immediate consequences wrought by the severe environmental degradation of World War Terminus, and Mercerism peddles a postnuclear nostalgia for extinct animals predicated upon sharing in collective joy and suffering. Though real animals still exist on Earth, they are scarce and thoroughly entrenched in commodity networks. They fetch exorbitantly steep market prices which are standardized in Sidney's Animal & Fowl Catalogue, a monthly supplement that tracks fluctuating values much like the Blue Book for automobiles. They are displayed much like automobiles, too, on "Animal Row." One can even trade a currently-owned animal in for a new one.

Ownership of an authentically alive animal is a moral duty within the strictures of Mercerism, yet there also exists just as robust a commodity network around electric animals. These are cheaper, and acceptable to a lesser degree so long as they maintain a convincing appearance of the "real thing." Preservation of this façade extends even to the repair of the electric animal: technicians retrieve the animal from one's abode fully disguised as a real animal technician (in fact, this is J.R.'s job, as he drives pickup and delivery for an artificial animal

repair firm). Deckard is clearly not satisfied with the electric sheep he owns but the real sheep he had died of tetanus. Deckard's primary motivation for taking on the dangerous task of retiring six androids in one day is to earn enough bounty to purchase a real animal. By contrast, J.R. is not able to afford even an artificial animal and experiences deep shame over it, feeling that "upon him the contempt of three planets descended."²⁷

Though all creaturely life is deemed valuable within Mercerism, insects and toads are regarded as especially sacred. No specific reason is given, though androids treat this hierarchy of value with vitriolic derision: they would consider themselves superior beings to insects, even to animals, according to the vertebratemorphic scale that hews to the Great Chain of Being scheme.²⁸ Indeed, this is a world where everyone carries around a small medicine bottle—imagine those ubiquitous translucently orange containers secured by white child-protection caps—with the explicit, if not far-fetched, aspiration of happening upon a creature to scoop within its confines. Though insects are elusive, invisible, and scarce in this world—a concept almost unfathomable to our own—they haunt memory and inspire hope enough to warrant the ritualistic carrying of just such a bottle. Such an act exposes one facet of the animal-oriented postnuclear nostalgia of Mercerism: though domestic animals like cats and sheep are purchased

²⁷ Dick, *Do Androids Dream*, 19.

²⁸ The Great Chain of Being, also referred to as *scala naturae* (scale of nature), is a taxonomic system stemming back to the early modern period in which all life is hierarchized beginning with God and the angels, then humans, then animals stratified by kingdom, and finally plants and minerals. Insects were ranked among the lowest of the animals because it was still believed that they arose from spontaneous generation and were the product of organic rotting waste. This system, as David Livingstone Smith has pointed out in *Less Than Human: Why We Demean, Enslave, and Exterminate Others* (2011), is a "prerequisite for the notion of dehumanization, for the very notion of *subhumanity*" (42). Many still implicitly believe that the world is ordered according to this hierarchical scale with "lower" creatures at the bottom and humans at the top. See Arthur O Lovejoy's *The Great Chain of Being* and Juliet Clutton-Brock's "Aristotle, the Scale of Nature, and Modern Attitudes to Animals."

and stewarded, there still exists an intense longing to experience the discovery of an animal in the wild, in its own environment.

In a world dictated by scarcity and mass extinction of animals, such a discovery solidifies a sense of authenticity, of connection with the environment and the creatures which are supposed to inhabit it. Such an experience is what Barbara Herrnstein Smith has called “the ontological thrill of the animal,” a quickening of spirit derived from an embodied encounter with a creature in its natural habitat.²⁹ What characters in this world do not seem to realize is that the postatomic environment of Earth has become the natural environment of androids and electric animals. Empathy thus becomes a kind of protective marker for humans to edge out this increasingly artificial world, a way of ensuring the human exceptionalism I mentioned above. In a society where everyday animals have vanished on a vast scale, Mercerism’s animal-oriented rituals centered on empathy and stewardship memorialize the vanished. Animal scarcity, then, is affectively mourned by ritualistic stewardship of simulacrum in the absence of the real thing. But even animals that are “the real thing” in *Do Androids Dream* are tinged with artifice. Deckard’s neighbor, Bill Barbour, proudly announces that his horse is pregnant by in vitro fertilization. J.R. confuses a real cat’s pained screams for an electronic cat’s, attempting to convince himself that it is fake. Even the abundant live animals which comprise the Rosen Corporation’s menagerie, which Deckard can smell, are thrown into question when the raccoon they attempt to bribe him with turns out to be fake too. The blurred boundaries between authenticity and artifice continues in Dick’s depiction of androids as mere reflex machines.

²⁹ Smith, *Scandalous Knowledge*, 157.

The Android as Reflex Machine

The android model that Dick uses in his fiction stresses the centrality of empathy for humans to truly qualify as a part of humanity. Android inability to pass an empathy test reveals what is dangerous and debased in our own image, namely human behavior cut off from or otherwise disengaged from the world and from others. The opposition between the cool, abstract rationalism of the android, a reflex machine confined to a preset of behaviors and functions, and the emotionally governed human, adaptable to environment and social contexts, is the traditional distinction for Dick. He elucidates this sentiment explicitly in his 1972 speech, “The Android and the Human”: “A human being without the proper empathy or feeling is the same as an android built so as to lack it, either by design or mistake... he stands detached, a spectator.”³⁰ By implying that androids could very well be built to include empathic faculty, Dick suggests that the lack of such a feature reveals an anxiety over autonomous and self-organized machines. Most importantly for him, androids are situated as reflex machines in relation to humans:

...the difference between what I call the “android” mentality and the human is that the latter passed through something the former did not, or at least passed through it and responded differently—*changed*, altered, what it did and hence what it was; it *became*. I sense the android repeating over and over again some limited reflex gesture, like an insect raising its wings threateningly over and over again, or emitting a bad smell. Its one defense or response works, or it doesn't. But, caught in sudden trouble, the organism that is made more human, that becomes precisely at that moment human, wrestles deep within itself and out to itself to find one response after another as each fails.³¹

This passage complicates Dick's observations on insect autonomy and desire by capitalizing on limited adaptive capacity as the conceptual link between machine and insect. While spiders may be allies and beetles brethren, the fact still remains that they are ruled by reflex. For both machine and insect, behavior is programmed, not learned, and obstacles are encountered with

³⁰ Dick, “Man, Android and Machine,” 211.

³¹ Dick, “Man, Android and Machine,” 203.

preset instinct, not adaptation. A reflex is an involuntary reaction in response to stimulus, an automatic behavior that occurs without conscious self-control. Reflex is not relational because it does not include the ability to experience one's own emotions, and thus change. Nor does it include the ability to imagine the emotions of others. Reflex, then, is the lack of experience—learning or relating through experience—and is compensated for through the process of mimicry. As an adaptive trait, mimicry aspires to mask reflex by successfully blending the organism into the environment for the purpose of survival. This link is, of course, a relatively binaristic understanding of both machines and insects, but for the most part it remains a common perception.

Empathy—from the Greek word *en*, meaning “inside,” and *pathos*, meaning “to suffer, or feel emotion”—is to literally project into something or someone else's emotions. The empathy box, for example, allows those who grasp its handles to partake in the suffering and joy of other users and thus gain comfort from those around them. To frame the androids as mere reflex machines suggests that they do not have this capacity for relationality, for being able to be inside another's suffering. Dick's recollection of the transformative moment with the beetle, when he realized that “this beetle was like I was,” clearly shows a capacity for empathic projection towards another creature, even a creature which may not be able to return the gaze in full. For Dick, the sudden recognition that the beetle desires and deserves to live is an example of empathic identification, that imaginative sympathy which extends towards another thing or being through the creative act of envisioning what is going on in another mind.

One way in which empathy is used as a framework for pitting humans against androids through an insectoid lens within *Do Androids Dream* is by way of an extended metaphor of prey-predator relationships. Early in the novel, while ruminating on the ethical ramifications of his

profession, Deckard speculates that the ability to experience empathy is a function of the evolutionary distinction between solitary predators, like the spider waiting in its web, and herd animals, like humans. Without empathy, the androids are threatening entities which masquerade as human but can never be human. Like the bounty hunters who pursue them, the androids have an affinity with predators that is dehumanizing, which is Deckard's rationalization for exterminating them: if the androids are understood only as merciless killers it is easier to suspend one's own empathy to eradicate them. Unlike humans, they are more like spiders and other solitary predators for whom an attribute like empathy would be contrary to survival: empathy is something "a solitary organism, such as a spider, would have no use for," and a "humanoid robot constituted a solitary predator."³² To have empathy would mean death for a solitary predator since it would undermine the mechanisms behind predation and "tend to abort a spider's ability to survive" since it would "make him conscious of the desire to live on the part of his prey."³³

Empathy, he once had decided, must be limited to herbivores or anyhow omnivores who could depart from a meat diet. Because ultimately, the empathic gift blurred the boundaries between hunter and victim, between the successful and the defeated. As in the fusion with Mercer, everyone ascended together or, when the cycle had come to an end, fell together into the trough of the tomb world. Oddly, it resembled a sort of biological insurance, but double-edged. As long as some creature experienced joy, then the condition for all other creatures included a fragment of joy. However, if any living being suffered, then for all the rest the shadow could not be entirely cast off. A herd animal such as man would acquire a higher survival factor through this; an owl or a cobra would be destroyed.

Empathy is the glue that holds the herd together since it allows one entity to imagine the contents of another entity's mind. It is a "biological insurance" that is "double-edged," meaning that the herd thrives together *and* falls together. The comparison to Mercerism here is revealing: the ascent and descent that empathy box users experience means exposing one's psychical

³² Dick, *Do Androids Dream*, 27-28.

³³ Dick, *Do Androids Dream*, 27.

boundaries enough to share joy but also suffering, thus signaling a “higher survival factor.” This comparison of prey and predator through the lens of empathy suggests that what an android will always lack in relation to a human, what makes it more solitary predator than herd animal despite being made in man’s image, is its fundamental inability to participate in the collective joys and sufferings of its own kind. The android is confined to instinct, to a limited range of actions, while arguably humans possess advanced problem-solving skills which might yield a heretofore untried solution. The blurred boundaries which occur in the exchange “between hunter and victim, between the successful and the defeated” can be seen in the dispossession of self that occurs in the process of mimicry, which compensates for a limited range of actions and behaviors by pretending a relation that does not exist by putting on a mask to obfuscate the true face underneath.

Mimicry and Dispossession of Self

Mantids strike a chord with humans because of their anthropomorphic form. They are able to swivel their heads and stare directly at you, thus giving the impression of a “gaze.” They are often described as preying devotionals. They manifest sentience which appears purposeful, yet they also have a horrible, terror-inducing quality.³⁴ Mantids have also become, at least in 20th century American iconography, cultural symbols of the *femme fatale*.³⁵ The female mantis,

³⁴ As modernist literary scholar Joyce Cheng has provocatively suggested, the praying mantis is uncanny because “it appears to prove that complex movements and intelligent operations can occur in raw nature, in the complete absence of human agency.” “Mask, Mimicry, and Metamorphosis: Roger Caillois, Walter Benjamin and Surrealism in the 1930s,” 72.

³⁵ This popular cinematic and literary archetype exudes sex appeal which disguises dark excess underneath. A seductive woman, her charms ensnare her lover in dangerous, often deadly, situations. Her ability to entrance and even hypnotize her victim can be seen as supernatural. The *femme fatale* is described as possessing supernatural powers akin to a vampire, witch, demon, or siren, because her power over men seems to originate from a mystical place. See Bram Dijkstra’s *Idols of Perversity: Fantasies of Feminine Evil in Fin-de-siècle Culture*; Mary Ann Doane’s *Femme Fatales: Feminism, Film Theory,*

which is much larger than the male, is notorious for devouring the male during or quickly after copulation. This theater of nature is mesmerizingly captivating, but only partly true. Female mantises observed exhibiting this behavior were mostly found in laboratory environs, where limited space made the mantises more aggressive than they would be in the wild.³⁶ Scientific fact remains obscured by imaginative notoriety, and the female praying mantis has come to represent automatic woman, devouring *femme fatale*.³⁷

The Surrealists, in particular, are responsible for this understanding of the female praying mantis as devouring *femme fatale*, symbol of enmeshed desire and death. Salvador Dalí frequently painted woman-insect grotesques, many of which were particularly mantid; Paul Eluard collected praying mantises; and André Breton bred praying mantises for two years.³⁸ Roger Caillois, who joined the Surrealist movement in 1932, wrote of the mantid's hold on imagination in "The Praying Mantis: From Biology to Psychoanalysis" (1934) and *The Mask of Medusa* (1935). Caillois was in large part responsible for the Surrealist craze of rendering the praying mantis as a devouring feminine force. He is perhaps best known, however, among the insect-inclined for cutting ties with Surrealists over a squabble with André Breton involving a Mexican jumping bean.

Psychoanalysis; and Elizabeth Kolbinger Menon's *Evil by Design: The Creation and Marketing of the Femme Fatale*.

³⁶ Prete and Wolfe, "Religious Supplicant, Seductive Cannibal, or Reflex Machine? In Search of the Praying Mantis."

³⁷ Elizabeth Grosz has written compellingly on the topic of the female praying mantis as the *femme fatale* of the insect kingdom. In her Irigaray-inspired reading of Caillois she writes that the mantis, like the black widow spider, "continues to haunt the imagination and projections of men" because both "have come to represent an intimate and persistent link between sex and death, between pleasure and punishment, desire and revenge." "Libido as Desire and Death," 167-205.

³⁸ Forbes, *Dazzled and Deceived*, 133. For more on the role of the praying mantis in Surrealist Art, see William L. Pressly's "The Praying Mantis in Surrealist Art," Ruth Markus's "Surrealism's Praying Mantis and Castrating Woman."

Though both men knew that cutting the bean open would yield a wiggling worm inside which would explain the bean's jumping movements, Breton refused to cut into the bean because it "would have destroyed the magic."³⁹ Breton's desire to preserve what was marvelous about the jumping bean revolved around the choice to not cut it open. For Caillois, this magic would only amplify once the mechanism behind it was revealed, and further knowledge gained. In a letter to Breton immediately following the incident, Caillois wrote that the worm-inhabited bean was an example of a "form of the Marvellous that does not fear knowledge but, on the contrary, thrives on it."⁴⁰ Although Caillois's decision to formalize his break with the Surrealists by writing a chiding letter to Breton about their disagreement over a Mexican jumping bean may seem a silly anecdote in the annals of history, it accentuates an important methodological takeaway of his "diagonal science": namely, the need for an order that allows disorder into itself.

Caillois conceptualized diagonal science as traversing disciplines and objects of study in order to discover unusual commonalities among unlike things. In other words, the diagonal sciences, he hoped, would be relatively indifferent toward what is human, would instead look at how "the immense gulf that separates living from non-living matter" might be bridged by looking at the properties they share.⁴¹ He was interested in how to "link the species, of the recurrent that act, so to speak, as a matrix of forms," as Marguerite Yourcenar notes, and it was primarily his "work on the octopus and the praying mantis" in which he discovered "the relation between a creature belonging to the lowest reaches of the animal abyss and the fantasies and desires inhabiting the deeps of humanity."⁴² Caillois critiqued the brand of abstract rationalism which dictates that science must be partitioned into neat containers since such categorization

³⁹ Raffle, "Ex Libris, Exempla—Excess" in *Insectopedia*, 331-35.

⁴⁰ Caillois, *The Edge of Surrealism*, 85.

⁴¹ Caillois, *The Edge of Surrealism*, 11.

⁴² Caillois, *The Writing of Stones*, xii.

“ignores the ‘diagonal’ relationships in nature which occur in those domains.”⁴³ In the Mexican jumping bean example, Caillois had hoped the bridge between poetry and science, between the marvelous movement of the bean and knowledge of the mechanisms behind that movement, would not be so incommensurable as they appeared to be for Breton.

Caillois’s influence on Dick’s philosophy is clear. In a letter written to the editor of his *VALIS* trilogy, Dick mentions a “French scientific book” which was given to him “because of [his] preoccupation with the question, What is reality? and secondarily, Are some of us not really human but merely appear human?”: “For years I reread the book, annotating the margins throughout...I had virtually memorized it.”⁴⁴ Dick wrote that this volume “has to do with the masks which certain insects have developed to appear to be other highly dangerous life forms, whereas in fact they are harmless...[it] points to a theory about life and the forces operating behind it.”⁴⁵ This book was Roger Caillois’s *The Mask of Medusa*. Dick incorporated a Cailloisian understanding of insect mimicry into his theory of life, and it certainly undergirds his conceptualization of the ZEBRA principle (to which I will return in the last part of this chapter). Foremost in this theory of life is dispossession in space, space as a devouring force. For in the process of mimicry, represented space becomes devouring and depersonalizing for the mimicker. The self is lost in, subsumed by, its environs.

One important concept which Dick borrowed from Caillois’s forays into mimicry was the function of the mask. Dick wrote that “there are ‘androids’ or ‘the mantis’ among us which appear human but only *simulate* humans” and that this is largely achieved by way of the mask.⁴⁶ Like the mantis, the android adopts a mesmeric mask—mesmeric because it seeks to transfix its

⁴³ Caillois, *The Mask of Medusa*, 12.

⁴⁴ PKD letter to Mark Hurst, February 11, 1977. *Vintage PKD*, 157.

⁴⁵ PKD letter to Claudia Krenz Bush, January 3, 1975. *Selected Letters of Philip K. Dick: 1975-76*, 4-5.

⁴⁶ Dick, *The Exegesis of Philip K. Dick*, 257.

audience into a spellbound trance, a mask because it disguises what lies beneath and does not correspond to what that truly is. In his 1975 essay “Man, Android, and Machine,” Dick further extrapolates the strategy of the mask: “You do not place fierce, cold metal over fierce, cold metal. You place it over soft flesh, as the harmless moth adorns itself artfully to terrorize others with ocelli. This is a defensive measure, and if it works, the predator returns to his lair grumbling.”⁴⁷ In this statement, Dick echoes Caillois’s eloquence on the myriad ways in which insects deploy mimetic masks to strategically disguise themselves: “...the creature acquires a pleasant appearance in order to attract, a disagreeable one to drive away, and a fearsome one to frighten.”⁴⁸ Of these three classifications of mimetic masks—disguise, wherein the creature advertises itself as another species; camouflage, wherein the insect blends itself into the environment; and intimidation, wherein the animal terrifies without analogous danger—the mask Dick ascribes to the mantis-like android is one of disguise, since it aspires to offer a different appearance than what it is in order to conceal its own identity.

The other interrelated concept which Dick gleaned from Caillois’s description of mimicry is the loss of oneself within represented space. Caillois wrote that “with represented space...drama becomes specific, since the living creature, the organism, is no longer the origin of the coordinates, but one point among others.”⁴⁹ In represented space, an entity can place itself within its environment, and knows where it is located in relationship to other, external things. The most recognizable place where this can be seen in *Do Androids Dream* is in the dual experiences that Mercerites experience in the ascent mimicry, wherein users mimic Mercer’s ascent up the hill and the descent mimicry, wherein users plunge into entropic death.

⁴⁷ Dick, “Man, Android, and Machine,” 213.

⁴⁸ Caillois, *The Mask of Medusa*, 58.

⁴⁹ Caillois, “Mimicry and Legendary Psychasthenia,” in *The Edge of Surrealism*, 100.

Mimicry threatens the boundaries of the organism by rendering its occupation of represented space as part of a digestive process according to Caillois. Instead of the organism being the active agent, space is the devourer: “Space pursues them, encircles them, digests them in a gigantic phagocytosis...the body separates itself from thought, the individual breaks the boundary of his skin and occupies the other side of his senses.”⁵⁰ Mimicry might sometimes be so well-executed that mimicking creatures risk consumption by their own brethren should they mimic the surrounding environment too closely.⁵¹ Caillois provocatively argued against the grain of the commonly accepted Darwinian model whereby every animal accords to an evolutionary use-value by instead suggesting that mimicry is in some cases superfluous, and, in fact, an ineffectual “dangerous luxury” because it is *too* effective. The subsumption into environment which mimicry strives for either insures survival or undermines it. To be overly successful may mean death as well.

Dick found mimicry a compelling metaphor for disassociation with reality and loss of identity, twin themes which suffuse much of his work. In *Do Androids Dream*, these themes largely pertain to Mercerism—both the ascent and descent experiences offer ways of occupying an otherwise unappealing space by becoming like the environment. Daily life is punctuated by mood organs and empathy boxes which influence how reality is experienced—one either ascends with Mercer, toiling uphill against nebulous killers who pelt rocks, or descends into the Tomb

⁵⁰ Caillois, “Mimicry and Legendary Psychasthenia,” in *The Edge of Surrealism*, 100.

⁵¹ Caillois explains the result of mimicry so effective that it defeats its purpose: “We are thus dealing with a *luxury* and even a dangerous luxury, as it does occur that mimicry makes the mimetic creature’s condition deteriorate: geometer moth caterpillars so perfectly simulate shrub shoots that horticulturists prune them with shears. The case of the Phyllidae is even more wretched. They graze on each other, literally mistaking other Phyllidae for real leaves...this could almost be viewed as some sort of collective masochism culminating in mutual homophagy—with the imitation of the leaf serving as an *incitement* to cannibalism in this particular kind of totemic feast.” Caillois, “Mimicry and Legendary Psychasthenia,” in *The Edge of Surrealism*, 97. Ellipsis and italics original.

World, an entropic nether realm brimming with extinct animals of years past revived.⁵² When J.R. Isidore, arguably the novel's biggest proponent of Mercerism, grasps the two handles of his empathy box, he can either ascend with the suffering figure of Mercer, or descend into the Tomb World. Both these experiences enact a kind of assisted mimicry in which J.R. loses himself as a coordinate in represented space. When J.R. descends into the Tomb World, the boundaries between reality and fiction are deeply porous, and he experiences this existential space as brimming with entropic decay mostly in the form of zombie-like animals. Yet in a world where J.R. is scorned for his special status, denied emigration, and granted only menial labor, connecting with others through his empathy box might be one of the few ways in which he can feel accepted within the human collective. Fusion with Mercer necessitates becoming like Mercer—devotees watch him toil endlessly under an alien sky in a barren desert, experience cuts and bruises from the rocks hurled by killers, and carry the wounds with them out of this alternate reality. The fusion experience afforded by empathy boxes renders humans like J.R. insect-like (at least in the eusocial sense) in that they partake in a unified hive mind.

The tension between fusion as, on the one hand, a form of a unified hive mind in which each entity conforms to a distributive ideal, and on the other hand, an affirmatively relational experience, is another example of the perpetually blurred boundaries which Dick insists upon in

⁵² Dick's conceptualization of the Tomb World is rooted in the existential psychiatry of Ludwig Binswanger, particularly his case study of Ellen West. Dick found Ellen West's description of her interiority an uncanny way of representing a state of mind mired in entropic decay, depression, and anxiety, the feeling of "moldering, locked in a dungeon, buried and walled into a tomb." "The Case of Ellen West," *Existence*, 295. In contrast to the Tomb World, West described an "aetherial" world where she felt happiest. A variety of diagnoses were attached to this oscillation between two worlds, among them schizophrenia and manic-depression. Anthony Wolk has noted in his exploration of the link between Dick's Tomb World and the existential psychologists that it remains clear that *Existence* "transformed [Dick] as a writer ... gave [him] a world view, which in turn he gave to his characters as novels" (102). "The Swiss Connection: Psychological Systems in the Novels of Philip K. Dick." N. Katherine Hayles has commented that the Tomb World is a "literary and fictional representation" of a paranoid schizophrenic state in which boundaries are deeply confused" (175). *How We Became Posthuman*.

Do Androids Dream. Humans like J.R. may faultily engage with their environment, and their experiences may be technologically mediated and thus arguably less authentic, but nonetheless, they still experience their environment. By contrast, androids do not. They mimic but do not enter into a *relationship*, with themselves, with others, or with the environment. Much like the insect that compensates for base reflex instinct through mimicry, the android attempts to fit into the environment and masquerade as human, but ultimately does not engage with the environment. Humans mimic the ascent and descent of Mercer, but androids are not afforded this mimicry even though they mimic humans in almost all facets.

Sacrosanct Life

Jeremy Bentham once famously remarked that the imperative question regarding animals is not “Can they reason?” or “Can they talk,” but rather, “Can they *suffer*?”⁵³ Suffering, broadly defined, is an unpleasant experience which threatens harm onto an entity. One of the stronger negative affective phenomena, it is frequently associated with pain sensations and frustrated desires. Suffering occurs in the life of a sentient being, so the question turns towards what counts as sentience, which is controversial territory as far as bugs are concerned. As we have seen throughout this chapter, even Dick, who espoused feelings of deep empathy with insects still at times struggled to understand them as truly alive. To suffer implies the capacity for sensations attached to pain. Only higher-order mammals are typically considered to possess such capacities in ways that make moral demands on us. In this section, I turn to the twinned climaxes of *Do Androids Dream*, which offer two moments wherein characters approach inconspicuous forms of

⁵³ Bentham, *An Introduction to the Principles of Morals and Legislation*, 1781.

life with discernable empathy, thus challenging the conventional approach to the suffering of animals.

“A spider, undistinguished but alive,” just “something small [moving] in the dust.”⁵⁴ When the spider first creeps into the narrative, it seems almost as though the radioactive dust which clings to every surface in the novel gives rise to it. When the spider appears, J.R. swoops to capture it with a plastic medicine bottle “which, like everyone else, he carried for just this.”⁵⁵ As he bursts into the apartment to share his discovered cargo with the escaped androids, the disparity of their reactions instantly reveal a difference between how each interprets what life is. Upon first observation, Pris notices the spider’s abundance of legs: “All those legs. Why’s it need so many legs, J.R.?” He replies, “That’s the way spiders are. Eight legs.”⁵⁶ Dissatisfied with this response, Pris sets to snipping the spider’s legs one by one while J.R. looks on horrified. For Pris, this is nothing more than a science experiment, and she the rational Cartesian scientist. For J.R. Isidore, it is quite a different matter: he believes the spider is preciously alive, capable of suffering. His horror exhibits a compassion for another creature, which is in alignment with Mercerian doctrine and demonstrates his humanity.

Given Dick’s long-standing fascination with and running commentary on spiders, the appearance of an actual spider in this narrative merits particular notice. Given the extended metaphor running throughout the novel about prey-predator dynamics in which the android is likened to a spider as solitary predator, it is significant that the spider which appears here has been rendered not a predator patiently perched in its web but vulnerable prey to the androids’ fascination with its radically different, and, to them, inferior morphology.

⁵⁴ Dick, *Do Androids Dream*, 205.

⁵⁵ Dick, *Do Androids Dream*, 205

⁵⁶ Dick, *Do Androids Dream*, 205

That Pris's Moreau-esque experiment centers on removal of the spider's legs is significant in two ways. First, Pris cannot understand the existence of creatures whose morphological form might be different from her own, built as she is in the image of human bipedal form. Second, her understanding of life is diminished or nonexistent because she is *not* life. She cannot value a creature, electronic or not, within the theological system of Mercerism or outside it. Pris's cold abstraction contrasts sharply against J.R.'s affect, which is heightened by his mutant status, great love of animals, and trenchant belief in Mercerism. J.R.'s sympathy for the spider stems not so much from absolute accuracy of knowledge that the spider is sentient (though he does believe so), but rather a willingness to believe that humans and animals are fundamentally enmeshed. His ethical resolution revolves not around the need to prove with unerring certainty the entity's sentience and thus act ethically towards it, but the obligation to radical openness which such an entity evokes.

If this moment suggests the androids fundamentally lack empathy, J.R.'s compassionate horror would make us believe he is the most human of the characters in the novel, including Deckard. But perhaps the spider is not worthy of such grief, perhaps it is electronic after all. Perhaps the androids mutilate it to show J.R. the incommensurability and misdirection of his empathy.⁵⁷ As Laurence Rickels puts it, "[a]ndroids see through our attachment to animals and the group bond it guarantees as an ideological ruse whereby they are denied their equal rights."⁵⁸ This reading is supported by the fact that their fellow android, news anchor Buster Friendly, has

⁵⁷ Here Peter Carruthers's defense against acting in a moral or ethical way towards invertebrates even though they arguably possess capacities which might instigate sympathetic or moral concern on our part is instructive: "... invertebrates make no direct claim on us, despite possessing minds in the sense that makes sympathy and moral concerns possible. Invertebrates believe things, want things, and make simple plans, and they are capable of having their plans thwarted and their desires frustrated. But it is not wrong to take no account of their suffering. Indeed, I would regard the contrary belief as a serious moral perversion. And I suspect that most ordinary folk will agree." Carruthers, "Invertebrate Minds," 296.

⁵⁸ Dick, *I Think I Am*, 296.

just exposed Mercerism and its tenets as a hoax. When Pris snips the first leg off the spider, the narrative cuts to Buster Friendly encouraging his viewers to scrutinize an enlargement of the background Mercer performs his sacrificial ascension against. As Pris smilingly snips off another leg, the TV interrupts to announce that “[b]lowups of the video pictures when subjected to rigorous laboratory scrutiny, reveal that the gray backdrop of sky and daytime moon against which Mercer moves is not only Terran—it is artificial.”⁵⁹ Mercer is not the anguished martyr he claims to be, but rather a drunk from Gary, Indiana named Al Jarry, “merely some bit player marching across a sound stage.”⁶⁰ As Buster Friendly triumphantly announces, “perhaps even the stones hurled at Mercer by unseen alleged parties—are equally faked.”⁶¹ Nonetheless, even as the androids exult in this revelation, their mutilation of the spider exacts its toll not just on J.R. Isidore, lathered into a mournful frenzy as a result, but on us, as readers.

This protracted spider mutilation scene exposes the paradox Dick sets up in *Do Androids Dream*. On the one hand, he is adamant about characterizing androids as insect-like: they are nothing more than chitinous reflex machines, solitary predators like the spider. On the other hand, he prizes insect life above android life and disproves android humanity through the demonstration of their lack of empathy for life, especially insects. Though it is clear that Dick himself sides with J.R.’s sense of horror, his sense that “something ailed the three androids, something terrible,” we may pause to consider that this is a society which has outcast not only the androids, who are in essence escaped slaves wishing for a better life, but also “specials” like

⁵⁹ Dick, *Do Androids Dream*, 206. Emphasis original.

⁶⁰ Dick, *Do Androids Dream*, 207. Dick’s subtle allusion here is to the French symbolist author Alfred Jarry, best known for his philosophical concept of pataphysics, which he defined as “the science of imaginary solutions, which symbolically attributes the properties of objects, described by their virtuality, to their lineaments” (21). Jarry, *Exploits & Opinions of Doctor Faustroll, Pataphysician: A Neo-Scientific Novel*.

⁶¹ Dick, *Do Androids Dream*, 207.

J.R. Isidore.⁶² Reflecting on this scene in his later exegetical writing, Dick wrote that Mercerism, despite its seeming paradoxes, is “a coherent and lucid system” in which “the cruelty toward the spider is paradigmatic of the evil act committed by a debased and in fact soulless pseudo-human creature against God himself...”.⁶³ A spider would not warrant much compassion in everyday life and would likely be overlooked, yet by dedicating a prolonged descriptive scene to a spider’s mutilation at android hand in *Do Androids Dream*, Dick issues an affective Turing test to the reader. Would we react as J.R. Isidore has reacted? Would we pass the Voigt-Kampff Empathy Test if supplied a scenario about killing a wasp? Should we perceive our own relative indifference as a lack of empathic faculty? Would failure to pass such a test render us any less human? Should empathy extend to artificial life, and what does that suggest?

Computational researcher Sherry Turkle shares an enlightening anecdote on the matter of empathy and artificial constructs in *Alone Together*.⁶⁴ When she and her daughter visit the Charles Darwin exhibition at the American Museum of Natural History in New York, the entrance is graced by two Galápagos tortoise. Her daughter’s response to the tortoises was that they might as well be robots. Another child said she would prefer a robot turtle “because aliveness comes with aesthetic inconvenience,” and yet others offered the sentiment that

⁶² Dick, *The Exegesis of Philip K. Dick*, 211. Ellipsis mine.

⁶³ Dick, *The Exegesis of Philip K. Dick*, 867.

⁶⁴ Sherry Turkle’s *Alone Together* is pertinent to this chapter because she offers up an experiment with children concerning empathy towards artificial constructs. In this experiment, children are directed to hold inanimate dolls upside down, ranging from a Barbie to a Ferbie. Whereas Barbie could not protest her treatment, the Ferbie pleaded with the child to not turn it upside down as though it understood that it was being abused. The children were far likelier to become discomfited by the Ferbie’s reaction more quickly. Though the children understood that the Ferbie was not a living creature, they still felt the physiological response evoked from interaction with a living creature. Recall the scene in *Do Androids Dream* when J.R.’s empathic buttons are pushed by the pained screams of a cat he understood to be artificial. J.R. thinks to himself, “even though I know rationally it’s faked the sound of a false animal, burning out its drive-train and power supply ties my stomach in knots... If I hadn’t failed that IQ test I wouldn’t be reduced to this ignominious task with its attendant emotional by-products” (72). The cat turns out to be real, making clear that it is increasingly difficult to be able to tell the difference between a living and an artificial animal.

“aliveness didn’t seem worth the trouble.”⁶⁵ Turkle’s anecdote demonstrates that for the children aliveness does not hold an innate value within this context, since their purpose was merely to *appear* to be alive for educational purposes: whether or not they were *truly* alive was of little importance to achieving the desired effect. This anecdote provides a productive bridge to considering the epigraph which opens *Do Androids*, which, like many other animal-centered aspects of the novel, has been rarely commented on in Dick scholarship though it reveals much about the novel’s overarching concern with the authentic aliveness.

The epigraph is a Reuters press release from 1966 about the death of Tu’I Malila, a radiated tortoise from Madagascar which Captain Cook gave to the king of Tonga in 1777. It reads as follows:

AUCKLAND

A turtle which explorer Captain Cook gave to the king of Tonga in 1777 died yesterday. It was nearly 200 years old. The animal, called Tu’I Malila, died at the Royal Palace Ground in the Tongan capital of Nuku, Alofa. The people of Tonga regarded the animal as a chief and special keepers were appointed to look after it. It was blinded in a bush fire a few years ago. Tonga radio said Tu’I Malila’s carcass would be sent to the Auckland Museum in New Zealand.⁶⁶

Dick’s decision to open *Do Androids Dream* with a Reuters press release about stewardship of an animal with exceptional longevity foregrounds the novel’s thematic concern with empathy towards animals. The contrast between Turkle’s Galápagos turtles—whose vitality was met with indifference because it seemed in excess of their merely ornamental purpose—and Tu’I Malila—whose elevated status as a “chief” required appointed attendants—could not be more stark. As we will see in the following example, the concept of authentic aliveness remains ambivalent in the final climax of *Do Androids Dream*.

⁶⁵ Turkle, *Alone Together*, 4.

⁶⁶ Dick, *Do Androids Dream*, 2.

After an exhausting day of bounty hunting, Deckard returns home to learn that Rachael Rosen has fatally pushed his newly purchased goat off the roof. In despair, he treks to the “uninhabited desolation” of the desert, “to the place where no living thing would go...not unless it felt that the end had come,” in search of a solitudinous place to quietly gather his thoughts.⁶⁷ When he disembarks his hovercar upon arrival, he begins to walk up a hillside and “as he [plods] along, a vague and almost hallucinatory pall hazed over his mind” and he finds himself “a step from an almost certainly fatal cliffside fall.”⁶⁸ At this point, he is pelted by rocks, the first of which strike him in the “inguinal region” (the groin). His journey mimics Mercer’s journey even though he is not jacked into an empathy box. We may deduce, perhaps because the first strike is to his groin, that within the parable of this final fusion with Mercer, the rocks are pelted at him by Rachael Rosen. In the process of fusing with Mercer, Deckard makes a startlingly wonderful discovery in the desert.

He discovers a toad, a real toad, alive and well in the desert, which had “blended in totally with the texture and shade of the ever-present dust.”⁶⁹ Dick sets up the toad’s significance earlier in the novel when the species is described as “most important” to Mercer.⁷⁰ The toad, “the critter most sacred to Mercer,” is also believed to be extinct.⁷¹ Like J.R.’s spider, the toad so merges with its dust-riddled environment that only its movement reveals its presence. Upon finding the toad amidst a period of inner turmoil over whether or not he has done the right thing, whether or not android life qualifies as life per se, Deckard reflects on what counts as life under the banner of Mercerism: “So this is what Mercer sees, he thought as he painstakingly tied the cardboard

⁶⁷ Dick, *Do Androids Dream*, 227.

⁶⁸ Dick, *Do Androids Dream*, 230.

⁶⁹ Dick, *Do Androids Dream*, 237.

⁷⁰ Dick, *Do Androids Dream*, 24.

⁷¹ Dick, *Do Androids Dream*, 237.

box shut—tied it again and again. Life which we can no longer distinguish; life carefully buried up to its forehead in the carcass of a dead world.”⁷² Much like J.R.’s thrill at discovering a spider innocuously crawling around in the dust, Deckard’s rapture at having found a toad in the wild desert is potent: “His heart lugged under the excessive load, the shock of recognition.”⁷³ In a world of fakes—androids are fake humans, electronic pets are fake animals, and even Mercer might be a fake as well—a living creature like the spider or toad is a scarce entity. A living animal is an oddity in a world where most animals are extinct, and those that aren’t are thoroughly commodified and incredibly pricey to attain. A *wild* living animal is extremely rare. What’s more, Deckard’s driving desire throughout the novel, what even motivates him in the first place to take on an ambitious bounty hunt, is to attain a real animal. The toad fuses Deckard to Mercer in a way that seems significant for him, even though throughout the novel he has appeared skeptical of Mercerism.

The distinction between fake and real, fiction and reality, distorts even further when Deckard ultimately realizes the toad, too, is artificial. Deckard hovercars out to the desolate desert in search of an authentic relationship with the natural world, and presumes the toad to be just as authentic as the environment he has sought out. Why is an artificial toad out in the middle of the desert anyway? One reading of this event is that there is no natural or authentic environment anymore, that artifice no longer compromises authenticity but is part of it. Another reading is that Mercer put the toad there so that Deckard would come back from the brink of desolation and believe again. Once Deckard realizes the toad is artificial, he has another revelation. He says to himself, “the spider Mercer gave the chickenhead, Isidore; it probably was

⁷² Dick, *Do Androids Dream*, 238.

⁷³ Dick, *Do Androids Dream*, 236.

artificial, too. But it doesn't matter. The electric things have their lives, too. Paltry as they are."⁷⁴ What kind of "life" does Deckard refer to here? Does he grant it in an ontological sense, because of his experience of empathy, even sexual desire, towards specific android artificial constructs? Has he come to acknowledge that such empathy is a *possibility*, a new kind of affective structure, which humanity must articulate from here on out? Has having seen an android experience empathy for him and other androids, while seeing a human extend no empathy completely undermined the centrality of its role in humanity?⁷⁵ Could it be that perception of one's own emotions leads one to imagine that others may have those emotions even when they don't? Deckard's understanding of his empathy for a "fake" leads him to the possibility that fake animals and androids might also experience empathy.

Is a fake fake real?: Reading *Do Androids Dream Through the Exegesis*

In March 1974 Dick began a massive undertaking and did not stop until his untimely death in 1982. What happened to Dick during this time is the subject of the *Exegesis*, a sprawling paradox: the handwritten manuscript weighs in at over 8,000+ pages in which Dick teases out a plethora of hypotheses to explain his experiences. Among the list of possible explanations were aliens, angels, the FBI, a "tutelary" spirit named Thomas which manifested itself to him in the form of a pink beam, and may or may not have impregnated him with a saprophytic egg. Over

⁷⁴ Dick, *Do Androids Dream*, 241.

⁷⁵ After Deckard and Rachael Rosen sleep together, Rachael expresses empathic feelings towards Deckard and towards Pris, who is another android modeled on the same type and thus looks like her. While Rachael expresses unexpected empathy for an android, Deckard encounters a human who ends up lacking empathy. When Deckard teams up with Phil Resch—who he at first suspects is an android but turns out to be human after all—he is startled by the callous ease with which Phil retires Luba Luft. Again, their respective treatment of animals calcifies their androidness and humanness: Rachael mercilessly kills Deckard's goat in an act of revenge, while Phil when grappling with the fear that he might be an android waxes fondly about his love for his pet squirrel Buffy.

time, Dick settled on the conviction that a larger system, an ultimately insectoid organism, that he interchangeably called *VALIS* (Vast Active Living Information System) or *ZEBRA* (for its capacity to mimic our reality), was communicating with him.

What happened in Dick's life in March 1974 that would catalyze such feverish dedication to this ambitious project? It depends on who you ask, and Dick himself spent the rest of his life answering that very question. What we do know is this: Dick had a series of visionary experiences which profoundly affected him. They may have been drug-induced: he had two impacted wisdom teeth pulled, and was given a shot of Sodium Pentothal for the intense pain.⁷⁶ Later the same day, Dick experienced a revelatory moment which he would come to refer to as the "gleaming fish" episode: he heard a knock and opened the door to a young woman on whose neck dangled a golden fish necklace. Immediately following this encounter, he explains, he had hypnogogic visions, auditions, encounters with pink beams. One of these pink beams conveyed to him that his son Christopher was suffering from an undiagnosed inurieal hernia: doctors were startled to discover that this diagnosis was accurate when Dick brought Christopher to the hospital. Some of the hypnogogic visions lasted all night, and Dick described them as like a rapidly spinning film with the feel of "nonobjective paintings" like those of Kandinsky or Klee.⁷⁷ This was a tumultuous and troubling time in Dick's life. However, I do not offer biographical datum as spectacle, but rather, as an explanation for the rather chaotic tendriling of his exegesis. Certain passages clearly suggest a pained mind frantically spinning theories in all directions in an effort to grasp hold of a glimmer of sanity. The weirdest of these passages concern the *VALIS/*

⁷⁶ Sodium Pentothal has been used to relieve trauma and help recover painful repressed memories, and it is also sometimes used, even today, as a truth serum because it decreases higher cortical brain functioning.

⁷⁷ Dick, *The Exegesis of Philip K. Dick*, 7.

ZEBRA. Dick strikingly conceptualized this all-encompassing organism as insectoid in form and behavior.

At certain moments in his exegetical writing, Dick describes *ZEBRA* as a luminous moth descending upon us, moths being superb mimics. At other points, he visualizes *ZEBRA* as a particulate swarm of insects: “I saw them and they look like little white insects—bugs... they look to us like life forms that the analogic life forms on our planet are degenerate, machine repetitious, arc—reflex arc—machines—ants... On their planet those are the viable evolutionary trend.”⁷⁸ Yet Dick also goes beyond just visualizing *ZEBRA* as insect-like in appearance and delves into the characteristics this organism possesses by returning to Roger Caillois’s *The Mask of Medusa*. He writes with some measure of amazement that he “got the concept of Zebra from a book about insect mimicry! Is Zebra insect-like in other ways than this metamorphosis? Two insect qualities: camouflage mimicry and morphological metamorphosis—the breaking down of the old to produce the new eidos! (morphe).”⁷⁹ Camouflage mimicry operates by masking presence through mimicking environment: *ZEBRA* masks its presence by using these same tactics. Morphological metamorphosis, the changing form of an organism as it advances from a juvenile state to an adult state, here literally means the disintegration of an old form in order to make room for a new form. For Dick, the contrast between morphological metamorphosis and entelechy growth is between a system that grows by advancing its form and a system which is fully realized and its potential actualized. His *VALIS/ZEBRA* principle imagines these tactics, deployed by insects in microcosm, on such a scale that we do not recognize them in play.

⁷⁸ Dick, *Final Conversations*, 189. In a befuddled response to Dick’s admittedly strange tangent during an interview, the interviewer interjects by expressing their dislike about insects, saying, “they’re so repulsive to humans... just nasty things that everybody wants to kill and eradicate” (189).

⁷⁹ Dick, *The Exegesis of Philip K. Dick*, 256.

Dick provocatively imagined that *ZEBRA*'s process metamorphosis was our experience of reality and time. The reality that we perceive and live and are embodied in, then, is part of an all-encompassing organism's metamorphosis. We do not recognize it because its ability to camouflage itself by mimicking our world is superb. It has managed to deceive our perceptual senses by convincingly mimicking our environment and masking its presence. This idiosyncratic cosmology adheres to faith in a unifying force undergirding absolute reality and beyond flux, since for Dick, "behind all this glimmers a real world, with real beauty and love."⁸⁰

In order to describe the experience of being suspended in this organism's manipulation of reality, Dick again recalls the spider waiting in its web. *ZEBRA* is a "spinner at work," our world "his artifact": "And there is deception (or illusion) involved. We are in the web. Caught in it, with no idea at all of its artifactual nature (and the furiously moving—spinning and arranging spinner)."⁸¹ I have already elaborated on the significance of Dick's use of spider figuration to think through not just the role of empathy in delineating the contours of humanity vis-à-vis androids but in the dynamics of prey-predator relationships as well. Dick depicts the spider as prey to the androids at the end of *Do Androids Dream*, thus refracting this figuration back on itself. Androids are likened to spiders because they are solitary predators, yet when a spider actually appears it is rendered vulnerable and preyed upon by the androids. Here, in this understanding, we are the prey unaware that we are caught in a web already, that the world and our perception of it is the web.

⁸⁰ Dick, *The Exegesis of Philip K. Dick*, 7.

⁸¹ Dick, *The Exegesis of Philip K. Dick*, 907.

Chapter Four

Intimate Encounter with Insectoid Aliens in Octavia E. Butler's "Bloodchild" and *Lilith's Brood*

Although many Americans thought the days of bomb drills and fallout shelters were over by the 1980s, nuclear triumphalism intensified during the Reagan-era administration. Between 1981 and 1983, Reagan undertook a massive lobbying campaign designed to convince American citizens that it was imperative to prepare for all-out nuclear war yet again. Decrying the Soviet Union as an "evil empire" comprised of "godless monsters" who have "less regard for humanity," Reagan's talk of the possibility of a "winnable" nuclear war relied heavily on hierarchical thinking which subordinated Soviets as less human, less capable of good, and thus more justifiable targets for eradication.¹ Much like the dehumanizing political rhetoric aimed at Communists during the 1950s, Reagan's hierarchically organized thought process relied on the evangelical opposition between good and evil, and clearly positioned Americans as citizens of

¹ In late 1981, President Reagan approved a National Security Decision Document which committed the United States to fighting and winning a global nuclear war. Interviews with head American politicians seemed to suggest that conversations were heading in the direction of survivable nuclear war. American defense official and arms negotiator Thomas K. Jones suggested in an interview with Robert Scheer in 1981 that the United States would be able to recover from an "all-out nuclear war" with the Soviets in an astounding "two to four years." Jones's response to Nikita Khrushchev's "We will bury your threat" was to suggest that not only was "[n]uclear war is not nearly as devastating as we have been led to believe," but that "[i]f there are enough shovels to go around, everybody's going to make it" since "[i]t's the dirt that does it." *With Enough Shovels*, 18-26. In March 1982, the Reagan White House engaged in a simulated worldwide nuclear war game which ended in a full nuclear blowout between the United States and the Soviet Union.

the highest moral caliber whose duty was to defend America, and the world, against evil-doing. Alongside anxieties about Reagan-era nuclear triumphalism, the 1980s saw a surge in public awareness of environmental degradation and its consequences. Public anxieties abounded concerning such topics as genetic engineering, invasive species, toxic waste, and climate change.

Octavia E. Butler's *Lilith's Brood*, a trilogy written and published from 1987 to 1989, was conceptualized as a direct rebuke to the kind of hierarchical thinking that she saw at work in the Reagan administration's war rhetoric.² She certainly did not mince words on the relationship between nuclear rhetoric and masculinity: "Nuclear weapons are the biggest penises of all. Disarmament can be experienced as emasculation."³ In *Lilith's Brood*, the few remaining human survivors of nuclear apocalypse are rescued by a nomadic alien race of genetic engineers called the Oankali, who drift through the universe in search of life forms to genetically assimilate. The price of salvation from near extinction is the enforced hybridization of humanity, a trade which makes neither species what it once was. The narrative tracks three generations of interspecies breeding between humans and the Oankali.

Humanist assumptions inform Butler's incorporation of insectoid figuration into her description of the Oankali, whose lived environments include multi-sensory, consensus-based decision-making processes, interspecies kinship structures that mimic social insect formation, and queer cross-species sexuality. I situate my inquiry within the field of cultural entomology, which is the study of how human culture and society interact with insects and insect-like creatures as both embodied entities and as abstract representations—the Oankali, and related Tlic in her short story, "Bloodchild," are prime examples of how the human imagination concocts

² *Lilith's Brood* was originally published as *Xenogenesis*, and is comprised of *Dawn* (1987), *Adulthood Rites* (1988), and *Imago* (1989). For the rest of this chapter, I will refer to the trilogy by *Lilith's Brood*.

³ July 14, 1986 journal entry in large commonplace book, OEB 3232, Box 180, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

new fantastical beings who share much in common with insects.⁴ I argue that the ambivalent cross-species intimacies which humans share with the insect-like Oankali and Tlic refigure insect disgust sensitivities as a productive tool for building alliances. This chapter also relies on original archival research conducted in the just recently available Octavia E. Butler papers at the Huntington Library in San Marino, California. The parts of the archive that I find most salient and enriching to my argument are the repository of compositional notebooks in which Butler kept material pertinent to each of her working projects. I have drawn from approximately thirty compositional notebooks in which she detailed her writing process, character sketches, lists of names, and questions to herself about the narrative arc in “Bloodchild” and *Lilith’s Brood*. The archives reveal Butler’s deep concern with the ecological, scientific, and political issues which form the backdrop for her fiction, an enduring attentiveness to the role that difference plays in speculative fiction, and how nonhuman creatures offer alternative sensoria and capacities which might challenge human behavior.

The first novel in the *Lilith’s Brood* trilogy, *Dawn*, is told through the perspective of Lilith Iyapo, a black woman whom the Oankali choose to become the first human for crossbreeding experiments. *Adulthood Rites* is told through the perspective of Lilith’s half-Oankali son, Akin. *Imago* focuses on Jodahs, the first human construct ooloi. An ooloi is neither male nor female but rather a third kind of sex whose primary role within Oankali society is to manipulate genetic material. As the first human-Oankali ooloi, Jodahs is very dangerous because

⁴ Butler was evidently familiar with the field of cultural entomology, and more specifically the work of Charles L. Hogue, who coined the term. In the archives I discovered a newspaper fragment in which she underlined a two-part lecture series by Hogue, entitled “Cultural Entomology: Insects in Human Culture.” Hogue was at that point an entomology curator at the Natural History Museum of Los Angeles County. It is extremely likely that Butler attended these lectures in preparation for her upcoming excursion to the Amazon rainforest to research her *Lilith’s Brood* trilogy, as she possessed the handouts from the lectures and had filed them with her Amazon travel documents.

of his ability to change the genetic makeup of anything he touches, and he learns throughout the novel how to harness this power.

From Butler's perspective, the idea of a "winnable" nuclear war was absurdly dangerous and impelled her to write a trilogy imagining its endgame by considering how human survivors would cope with the total annihilation of the planet.

I tell people that Ronald Reagan inspired [*Lilith's Brood*]— and that it was the only thing he inspired in me that I actually approve of. When his first term was beginning, his people were talking about a 'winnable' nuclear war, a 'limited' nuclear war, the idea that more and more nuclear 'weapons' would make us safer.⁵

The world that Butler builds in *Lilith's Brood* is predicated upon a humanist understanding of a relationship between humans and nonhumans. Although Butler still prizes the irreducibly human, her alien narratives turn away from the assumption of human dominion and superiority so often seen in science fiction: her human protagonists do not explore the unexplored like settlers or colonials, and they do not meet and then colonize the aliens they encounter. Instead, her humans are straggling survivors from an Earth ruined by human hubris, and must make accommodations for their mistakes by bartering their bodies with new trade partners. Lilith Iyapo, whose integration into Oankali society is the subject of the first book in the trilogy, *Dawn*, intuitively early on that there is a cost to her salvation: "I want to know the price of your people's help. What do you want of us?"⁶

Perhaps this cost would not be as difficult to bear if the nonhumans that Lilith and the other human survivors encountered were humanoid in form. Instead, the Oankali exhibit insectoid behaviors and their morphology, though at times seeming to be an amalgamation of a multitude of invertebrate species, is insectoid as well. When Lilith encounters her first Oankali

⁵ Butler, *Conversations with Octavia Butler*, 23.

⁶ Butler, *Lilith's Brood (Dawn)*, 15.

being, Jdahya, she at first feels comforted by what she assumes is a “tall, slender man [who] was still humanoid” with “flat, gray skin.”⁷ Yet when she steps closer and realizes that what she initially thought was hair is in fact a tangle of tentacles “[writhing] independently,” she is immediately repulsed by his “alienness, his difference, his literal unearthliness.”⁸ She “[imagines] big, slowly writhing, dying night crawlers stretched along the sidewalk after a rain,” as well as “small, tentacle sea slugs—nudibranchs—grown impossibly to human size and shape.”⁹ The language Butler uses to describe these sensory tentacles reveals how colloquial understandings of insects and other invertebrates supersede classic taxonomic differentiation. Not only do earthworms and nudibranchs (which are a kind of soft-bodied, marine gastropod mollusk) belong to different phyla, but one burrows underground while the other is aquatically benthic. The more casual nicknames for both these crawling creatures are used instead of their proper species designations. Lilith refers to earthworms as “nightcrawlers,” thus evoking their nocturnal habits, and calls nudibranchs “sea slugs.” Even though these two “writhing” creatures may not initially appear as though they belong within the same insectoid sensorium, Lilith’s affective response in reaction to the sensory tentacles undulating in unison brings them into the same category. Butler’s Nebula- and Hugo- winning novelette, “Bloodchild” (1984), also envisages insectoid aliens which utilize human bodies for reproductive purposes. Instead of crossbreeding with humans and sharing genetic material as the Oankali do, the Tlic, who resemble massive centipedes, require human hosts to incubate their eggs.

Butler’s deployment of insect figuration as a vehicle for her rebuke to nuclear triumphalism and environmental degradation may initially seem a particularly odd choice. Yet in

⁷ Butler, *Lilith’s Brood (Dawn)*, 13.

⁸ Butler, *Lilith’s Brood (Dawn)*, 13.

⁹ Butler, *Lilith’s Brood (Dawn)*, 14.

both “Bloodchild” and *Lilith’s Brood*, the insect colonization of humans draws out experiences of disgust and empathy which enable a critique of how power is dispersed within hierarchical societies. Whereas the metaphorical threat posed by the bevy of irradiated big bugs that skittered across the celluloid screen in the 1950s upheld American power hierarchies by materializing a clear “us” versus “them” paradigm that granted scientists and military personnel alike exceptional power against a united enemy, Butler’s texts emblematize such power hierarchies by imagining coercive intimate encounter between humans and insectoid aliens as the byproduct of the idea of a “winnable” nuclear war. Clear division between “us” humans and “them” nonhuman beings dissolves as Butler’s trilogy progresses, making way instead for an ambivalent political and ecological parable about what options remain available for humans salvaged from their own species’ destructiveness.¹⁰ Alongside these imagined endgames, Butler targets not just the historical transatlantic slave trade in the parasitic rape in “Bloodchild” and enforced crossbreeding in *Lilith’s Brood*, but the continuing systematic domination of marginalized and oppressed communities. Though often touted as something of a scarce resource in a genre dominated by white men, African-American Butler eschewed and often distanced herself from identitarian politics in order to insist on her position as a writer who builds worlds. The

¹⁰ The irradiated big bugs from 1950s film were never allowed particularity or companionate status, and usually only served as destructive monsters that must be eradicated at all costs. There existed no room for sympathy. Butler’s insectoid aliens, however, elicit (and in part coerce via neurochemical means) a different response. They require particularity. Each Oankali has a different name and identity which they demand the humans honor even if initially humans cannot tell them apart. They desire companionate status with humans, and forge new kinship structures predicated on sexual comingling and gene trading with humans. The shift from combatting insect colonization, seen clearly in the big bug films, to ambivalent acceptance of insect colonization, is rendered literal during a scene of conflict between human resisters and the Oankali in *Dawn*. When the sensory arm of the ooloi Oankali Nikanj with whom Lilith has been paired is almost severed by a human resister during a battle, Lilith “stripped, refusing to think how she would look to the humans still conscious. They would be certain now that she was a traitor. Stripping naked on the battlefield to lie down with the enemy.” Butler, *Lilith’s Brood (Dawn)*, 232. Lilith later acknowledges that this action would lead the other humans to “not trust one of their own who seemed too close to the aliens.” Butler, *Lilith’s Brood (Dawn)*, 238.

difference which Butler emphasizes in her fiction, though, is that rather than having the alien Others stand in for racial otherness, as has been common in much speculative fiction, her human characters instead inhabit a plethora of racial and ethnic identities and the aliens are a separate entity onto themselves. In other words, difference is constituted through the aliens' insectness rather than race.

That the Oankali and Tlic are rendered insectoid is significant in two substantive ways. First, Butler interrogates the idea that human intelligence and hierarchy are not the exceptional qualities humans believe them to be, but rather flaws inherent, and fatal, to our species. Compared to other creatures which we think of as more instinctually driven, and thus inferior to us according to our own value-laden hierarchies of life, the undermining of these two traits unmoors humanist assumptions of exceptionalism. Once these assumptions are adrift, we can begin to marvel at how other kinds of life thrive with body plans, capabilities, and desires different from our own. Second, the cognitive estrangement which both narratives depend upon, in part through the startling juxtaposition between humans and insects, is a challenge to core beliefs about what being human means. Though humans often assume ourselves to be in charge of our own bodies, behaviors, and desires, this assumption is repeatedly challenged in both texts. In "Bloodchild," Terrans are sedated with intoxicating eggs. In *Lilith's Brood*, humans are continually surprised to learn that their actions are not entirely their own. When Lilith's lover, Joseph, succumbs to intercourse with Lilith mediated through her ooloi, Nikanj, for the first time, he initially feels hostile towards the desire the ooloi provokes in him, and suspects it of manufacturing the desire. Lilith admits that the Oankali can "hook into [human] nervous systems" and "push the right electrochemical buttons."¹¹ Though the humans in "Bloodchild"

¹¹ Butler, *Lilith's Brood (Dawn)*, 169.

and *Lilith's Brood* have little choice in participating in the reproductive cycles of the Tlic and Oankali, and find enactment of free will compromised by severely limited choices, the particularities of these relationships subvert expectations about what such coercion suggests. While the Tlic and Oankali manipulate humans into bartering their bodies in exchange for continued survival, they nonetheless desire that this exchange at least resemble something like consent. The insect colonization of humans which takes place in these texts undermines human exceptionalism by dissolving the kind of absolutist “us” versus “them” opposition I discussed in my first chapter concerning the big bug films of the 1950s. Though Butler’s texts have often been valorized as supportive of radical posthumanist possibilities because of the deep enmeshment which occurs between human and alien protagonists, her fiction nonetheless remains quite invested in humanism in the sense that there is a strong belief in the integrity of the category of “the human.”

From Disgust to Empathy

Insects occupy myriad coordinates on the spectrum between repulsion and affection which render them convenient projective registers for all manner of anxieties. As I have argued in prior chapters, both the big bug films of the 1950s and William Burroughs used insectoid imagery to evoke horror and fear, while Philip K. Dick focuses on empathy. Butler balances the kind of disgust which emerges from sites of horror and fear with ambivalent feelings of empathy and compassion. The human characters in both texts must become habituated to their uncomely insectoid hosts through a kind of immersion therapy not unlike those used to treat phobias. In other words, there is something *productive* about the disgust that Butler writes about. She writes

to get through disgust, to understand disgust, to realize that overcoming disgust may be a way to get to empathy.

The body plans of the aliens in *Lilith's Brood* and "Bloodchild" were derived in part from Butler's horror in response to insects. That the germs of these narratives first sprung from aversive affect is significant in that both narratives represent the necessity for humans to overcome their disgust towards aliens whose bodies are radically different from their own. And not just overcome these differences, but embrace them to such an extent that they give their bodies over to reproduction with these beings. When Butler traveled in the Peruvian Amazon rainforest to conduct research for the setting of *Lilith's Brood*, she became particularly fearful of certain kinds of insect life. She "worried that [her] fear of some of the nastier invertebrate life of the area might be overwhelming enough to cause [her] to hurt [herself]."¹² When she learned of how the botfly lays its eggs under the skin, she wrote to understand what she called its "horror movie habits." Her deep anxiety that a botfly might use her as a host informed how she crafted the Tlic in "Bloodchild" as an alien species, as well as the thematics of the narrative.¹³

The botfly lays its eggs in the wounds left by the bites of other insects. I found the idea of a maggot living and growing under my skin and eating my flesh as it grew not just intolerable, but so terrifying that I didn't know how I could stand it if it happened to me. To make matters worse, all that I heard and read advised botfly victims not to try to get rid of their maggot passengers until they got back home to the U.S.—or until the fly finished the larval part of its growth cycle, crawled out of its host, and flew away. The problem was to do what would seem the normal thing, to squeeze out the maggot and throw it away, was to invite infection. The maggot becomes literally attached to its host and leaves part of itself behind, broken off, if it's squeezed or cut out. Of course, the part left behind dies and rots, causing infection. Lovely. When I must deal with something that disturbs me as much as the botfly did, I write about it.¹⁴

¹² Typewritten manuscript draft of "Afterword" to "Bloodchild," OEB 213, Box 20, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

¹³ In an episode of the popular forensic crime drama *Bones*, botfly parasitism is similarly presented as a kind of cross-species male pregnancy. In "The Dude in the Dam," the resident expert entomologist and "slime guy," Dr. Jack Hodgins, welcomes the opportunity to play host to a botfly larva as it reaches maturity, and his partner, Angela, although disgusted by this turn of events, assists him in "giving birth" to the botfly.

¹⁴ Butler, "Afterword" to "Bloodchild," 30-31.

There are several key insights to take away from Butler's explanation of her inspiration for "Bloodchild" not just in terms of how she formulates disgust and horror but how she approaches the task of writing through it. The disgust sensitivity she writes about here pertains particularly to what kind of matter is allowed to cross the threshold of the body envelope. When the botfly penetrates skin and lays its eggs, it triggers disgust because it has not only violated bodily boundaries but it has parasitized human flesh and invited infection. What is so "intolerable" and "terrifying" to Butler here is what Julia Kristeva has identified as the abject, as "what disturbs identity, system, order... [w]hat does not respect borders, positions, rules."¹⁵ The idea of having one's body taken over and used as a host violates the kind of body envelope we imagine ourselves to have. But it is not just the botfly's parasitism of human flesh which Butler feels violates the body envelope and thus triggers disgust, it is the idea that one must provide safe harbor for this foreign alien for an unspecified amount of time or risk infection.¹⁶

Butler literalized her anxiety about botfly parasitism into a male pregnancy story that explores the power dynamics of social exploitation, politics of domination, and psychology of devotion between radically different beings. In "Bloodchild," humans are called Terrans, and live amidst an alien life form called the Tlic which resemble large centipedes. Butler derived inspiration for the morphology of the Tlic from a "book with black and white photos of

Typewritten manuscript draft of "Afterword" to "Bloodchild," OEB 213, Box 20, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

¹⁵ Kristeva, *Powers of Horror*, 4.

¹⁶ Butler's aversive fascination with human parasitism goes back even earlier, as evidenced by a poem she wrote in 1966 when she was 19 entitled "Parasite." In the poem she writes of a woman who "did not make her journey alone" as she "carried parasites/ Enumerable tiny feeding creatures/ Geared to live upon the living./ To eat her tortured flesh./ To bore deeply into her body./ And tear away muscle of her blood and bone." Handwritten poem on loose leaf paper dated May 12, 1966, OEB 2284, Box 122, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

invertebrates” in which there was one that was “so revolting that [she] would close the book because [she] didn’t even want to touch the picture.”

...the Tlic are rather like big centipedes with bones because they have to hold up all that weight and everything. But the real inspiration for them was something else I found in a book on insects. It looks like it might be like a centipede that didn’t quite get there. It’s quite small. It’s really a very early creature, very, very ancient creature. Like a cross between a slug and a worm. But it’s not really quite a worm and it’s not quite a mollusk.¹⁷

For reasons never made explicit in the story, humans were forced to leave Earth, sheltered by the Tlic, and kept in a “Preserve,” which likens them to zoo animals or endangered animals which must be maintained and regulated to ensure continued survival. The Tlic and Terran appear to coexist peaceably in enmeshed kinship structures despite the fact that Tlic females use the bodies of adolescent Terran males as incubators for their spawn.

The narrative trajectory of “Bloodchild” revolves around an adolescent human boy named Gan who must make the decision to become “pregnant” with the spawn of the Tlic mistress of his household, T’Gatoi, after witnessing first-hand the traumatic endgame of that decision for another man.¹⁸ Gan’s knowledge of what the birthing process entails has up to this point derived exclusively from “diagrams and drawings,” but upon seeing T’Gatoi split a man open and extract several “limbless and boneless” grubs that were “perhaps fifteen centimeters long,” he realizes that the procedure was “wrong [and] alien,” somehow “worse than finding something dead, rotting, and filled with tiny animal grubs.”¹⁹ Upon witnessing the brutality of the Tlic birthing process, which is more akin to torturous vivisection than anything else, he reevaluates his relationship with T’Gatoi. On the one hand, Gan has little choice in allowing

¹⁷ Govan, “Going to See the Woman: A Visit with Octavia E. Butler,” 30.

¹⁸ The Tlic hierarchy is matriarchal, in part because the females are substantially larger than the males, but also because their reproductive capabilities are culturally valued within their society. Butler clearly draws from the insect world here too, where males are generally smaller and less powerful than females.

¹⁹ Butler, “Bloodchild,” 16-17.

himself to become a human host for Tlic spawn. If he refuses, his sister's body will be used instead. His choice to ultimately allow T'Gatoi to impregnate him is not just due to love and affection for T'Gatoi but a sense of human familial sacrifice. On the other hand, there is a loving relationship between Gan and T'Gatoi. When Gan has finally made his choice, he asks "Do you care that it's me?" and T'Gatoi responds that she had made up her mind a long time ago and had just been waiting for Gan to make up his. Yet it is nonetheless unclear whether or not T'Gatoi's desire is rooted in affection or pragmatism: Tlic prefer male bodies because they believe them to be sturdier hosts than women's, and they need women to continue reproducing human babies to ensure there are future male hosts.

Butler draws inspiration from the worst insect appearance and behavior she can summon in order to create a scenario where human protagonists must confront horror and yet still give themselves over to it willingly. As readers, we share in Gan's disgust upon witnessing the writhing grubs emerge from a man's split open body, and disgust is necessary because it solidifies the sense that these alien beings are not benign companions but rather parasitic imperialists who demand a toll for continued survival. So when Gan agrees to impregnation after all, he must set aside his disgust and concentrate on his complicated desire instead. He admits that although he agreed to save his sister, he did so out of a sense of possessive jealousy. Although human men are merely incubators for Tlic grubs in "Bloodchild" and thus do not share genetic material or engage in intercourse requiring human genitalia with the Tlic, humans are folded into the reproductive cycle of the Oankali in *Lilith's Brood* much differently. As natural genetic engineers who require trade partners to exchange genetic material with every so often, the Oankali decide upon discovering a nearly destroyed Earth with only a few remaining humans that they are not just due for a trade but that humans are particularly desirable trade partners

because of their “gift” for cancer (a horrible disease for humans but useful to Oankali because of their ability to manipulate it). Perhaps most importantly, the Oankali derive pleasure from these genetic trades and take pride in pleasuring their trade partners.

Mollusk Sensoria and Interspecies Intercourse in *Lilith’s Brood*

When asked in an interview to account for the inspiration behind the Oankali, Butler foregrounds their invertebrate origins by recalling an encounter quite similar to her inspiration for “Bloodchild.”

I also have a particular aversion to some invertebrates, really a phobia. I ran across one, a picture of one that made me drop my book. The thing is something like maybe an inch long and utterly harmless and doesn’t even exist in my part of the country, I’m happy to say. It is a revolting little creature, and I’m really glad it’s not bigger. I wound up using part of its appearance to create the alien characters in *Lilith’s Brood*.²⁰

Although Butler does not identify the particular invertebrate she refers to in this interview, her phobic remembrance is nonetheless revealing. Although she recognizes that what she saw was just a picture and that the creature depicted is relatively small (“maybe an inch long”), not particularly threatening (“utterly harmless”), and not even an inhabitant of her area (“doesn’t even exist in my part of the country”), it was so visually startling to her that it caused her to drop the book but graft its most displeasing attributes into the Oankali. In a different interview, Butler recounts the morphological inspiration in more specific terms.

I used the same kind of well, phobic feeling because the Oankali have tentacles. There I used sea slugs as my model. Sea slugs can be very beautiful. They usually are poisonous, and they have tentacles most of the time. The thing about the sea slug is, if you see it undersea or on the television or whatever, it can be beautiful, but it’s still a slug. I mean, you know, it’s still slimy and it has that way of moving that—ew! [laughter].²¹

²⁰ McCaffery, “An Interview with Octavia E. Butler,” 58.

²¹ McCaffery, “An Interview with Octavia E. Butler,” 31.

A passage from an early draft of *Dawn*, the first book in the trilogy, also supports the idea that insect phobia was a major origin point in the trilogy. An Oankali character named Jdhaya comments to Lilith, the main protagonist, that she will find it difficult to overcome the disgusting appearance of the Oankali because she has a “strong fear—a phobia of things that crawl—things that writhe.”²² This piece of early dialogue emphasizes affective response towards nonhumans as the first real conflict of the trilogy. Lilith, who has been selected as a liaison between the Oankali and humans, is positioned as particularly aversive towards the appearance of the beings who are now in charge and who appear to be sentient. When she and other humans are required to pair up and mate with the Oankali, they must overcome their feelings of aversion. The rest of the trilogy documents a kind of intergenerational immersion therapy where those phobic feelings must give way to a more positive, albeit still ambivalent, spectrum.

In terms of the morphological appearance and behavioral capacities of the Oankali, there are some discrepancies among scholars as to what they actually look like. Donna Haraway thinks of them as “humanoid serpents” and notes that “[w]ithout human sensory organs, the Oankali are primatoid Medusa figures, their heads and bodies covered with multi-talented tentacles like a terran marine invertebrate’s.”²³ Rebecca Holden describes them as “gray-skinned humanoid beings with two arms, hands, legs, and feet,” even though some Oankali have more than two arms and the entire surface of their bodies is covered with writhing sensory tentacles.²⁴ The Oankali are much less primatoid and much less humanoid than Haraway and Holden might imagine: while there is direct textual evidence to support both the humanoid and serpentine characteristics Haraway outlines, the first is only brought up in order to be expediently refuted in

²² Typewritten manuscript draft fragment of *Dawn*, 1985, OEB 404, Box 28, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

²³ Haraway, *Primate Visions*, 379.

²⁴ Holden, “The High Costs of Cyborg Survival: Octavia Butler’s *Xenogenesis* Trilogy,” 50.



Figure 4.1. Sculpture of Oankali individual by Gisèle Renault (1992). Butler, Octavia E. Photograph: color: 15x10 cm. Folder 7191. Box 265. The Huntington Library, San Marino, California.

Lilith's first encounter with an Oankali when she misrecognizes dark patches of tentacles for recognizable human facial features like eyes and ears. That initial misrecognition is quickly remedied with a realization that the Oankali have "so little face" and that it was only the placement of their sensory tentacles which gave them the appearance of humanness.²⁵ The tendency to imagine fictional aliens as humanoid even when they are explicitly described as insectoid is clear in a photograph of a sculpture of an Oankali individual by Gisèle Renault among Butler's personal photograph collection (Figure 4.1). The sculpture preserves

humanoid form in the Oankali, even though Butler specifies that sensory tentacles cover the entire Oankali body like skin. Only a few on the back, head, and chest appear, and seem merely additive. Considering the vital role that human disgust towards Oankali bodies plays in the progressive hybridization of both species, the attachment to human form evinced in this sculpture rejects one of the most important aspects of the Oankali as an alien race. The Oankali are an amalgamation of many different kinds and types of species, represented as "divisions" in their

²⁵ Butler, *Lilith's Brood (Dawn)*, 29.

species-identity narrative.²⁶ It seems that even Butler at times struggled with nonhuman representational form, as we can see in a page from her idea notebook for *Dawn* below (Figure 4.2). Butler’s drawing of an Oankali face here initially seems to contradict the notion that the Oankali have “so little face.” Though the face appears at first to present as human, Butler

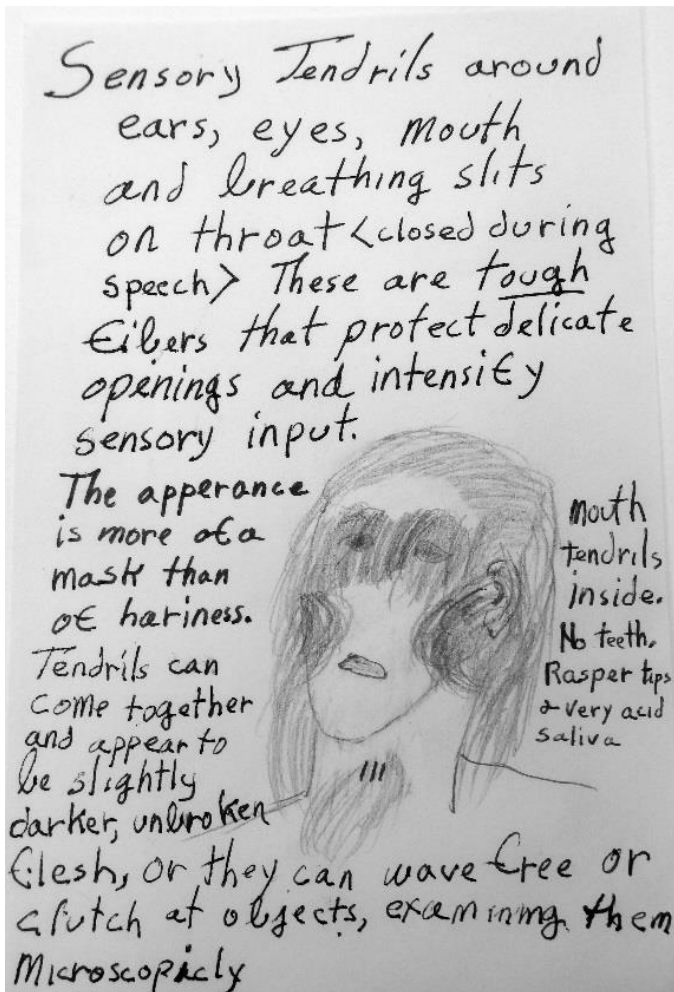


Figure 4.2. A page from Butler’s idea notebook for *Dawn*, 1985, OEB 2981, Box 150, The Octavia E. Butler Papers, The Huntington Library, San Marino, California.

sketches in dark patches that resemble places on the human face where the eyes and mouth would be, yet her accompanying note suggests that the sensory tendrils are “more of a mask than hairiness.” It is understandable that Lilith would misinterpret these dark patches as human attributes because of their placement; this sketch suggests that Butler drew from the natural world to present the Oankali as initially comforting in their adherence to a vaguely human shape which once revealed as a mask, would heighten the kinds of aversive affects I explore in this chapter.²⁷

²⁶ These divisions also create differences within the Oankali genetic lineage as there are some Oankali who decided to not participate in the genetic trade with humans and remained behind on the ship who resemble a “huge caterpillar.” Butler, *Lilith’s Brood (Adulthood Rites)*, 262.

²⁷ This model of nonhuman mimicry is also evident in Donald Wollheim’s “Mimic,” (1950) where an insectoid creature masks herself in human form so that she can live and move among humans. Butler may

The earlier origins of the Oankali clearly derive from marine invertebrate inspiration. In the trilogy she explains that these aquatic aspects of the Oankali come from an earlier division with a prior trade partner. When Lilith first learns about the multispecies history of the Oankali, which is conceptualized as different “divisions,” she is told one tale of how “[s]ix divisions ago, on a white-sun water world, [the Oankali] lived in great shallow oceans” and were “many-bodied and spoke with body lights and color patterns among ourself and among ourselves,” and she wonders at the idea of the Oankali “blending with a species of intelligent, schooling, fishlike creatures.”²⁸ In a novel fragment that was extracted from further revisions, Butler goes into more depth about the morphology of the Oankali when she describes an instance when Lilith swims with Jhadya.

He seemed to become a merman, his legs locked together by sensory tentacles into a single powerful organ—a tail. He dove through the water without apparent effort, fingers webbed, gray body streamlined. He came up not to breathe, but to startle her now and then by appearing where he was not expected.²⁹

While Butler was composing the above passage, she was in the midst of researching jellyfish and other aquatic animals. She was especially interested in how jellyfish and fish deploy threat signals and attacks to warn predators, and that they manipulate color to communicate. In earlier drafts of *Dawn*, such as the above passage, Butler considered borrowing from the adaptive coloration that jellyfish and fish share to make it more apparent when Oankali withhold the truth. Their color change would not merely make one suspicious that they are withholding information, but it would signal some of what is being withheld.

inadvertently be drawing upon a long history of insect mimicry to describe how the Oankali at first present to humans as human.

²⁸ Butler, *Lilith's Brood (Dawn)*, 63.

²⁹ Manuscript fragment of *Dawn*, 1985, OEB 399, Box 27, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

One invertebrate inspiration for Oankali morphology comes from the mollusks. Not a true bug in the entomological sense, mollusks are nonetheless grouped with other insects in a layperson's understanding of their kind. In one note from Butler's notebooks which work up the trilogy, she outlines her discoveries about mollusk sensoria. One note comments on how mollusks "can sense miniscule changes in air currents" just as a human might notice "if a car or truck drove past."³⁰ Butler extrapolates from mollusk sensoria what it might be like if intelligent mollusks were ordered to occupy a different kind of *umwelt*. Although Butler researched a variety of aquatic species in defining the Oankali, insectoid creatures seem to have been the most important for their sensory capacities and behaviors.

Interactions with the Oankali fundamentally change human identity categories, especially around gender and sexuality. Questions of coercive reproduction and desire across species lines are raised. While it would be easy to assert that *Lilith's Brood* is a narrative about the enforced crossbreeding of humans with an alien race, what warrants particular attention here is that such intimate alliances change the nature of human desire as well. It is noted throughout the trilogy that once humans have sex with one another with an ooloi mediating between them, humans are averse to even touching one another and must have the ooloi in-between them to facilitate intercourse at all times. While the neurochemical high that ooloi-mediated sex provides is described as incredible and life-altering, humans still feel as though they have lost an essential aspect of sex in which erogenous zones are bodily and mostly oriented towards genitalia.

³⁰ Handwritten note from October 19, 1983 in large commonplace book, OEB 3225, Box 179, Octavia E. Butler Papers, The Huntington Library, San Marino, California. It seems clear from Butler's notes that she derived much of her information about mollusks and other invertebrates from *Animals without Backbones: An Introduction to the Invertebrates* (1938).

These issues tend to focalize around the ooloi, the Oankali third sex whose nature at one point is described as meaning “treasured strangers.”³¹ Ooloi initially seem to Lilith and other humans to be androgynous. As objects of desire for both males and females, humans and Oankali alike, ooloi are positioned as mediators not just between the sexes but across species lines. In effect, the kind of transgression of boundaries and unfixed fluidity which ooloi-mediated intimacies offer queer not just traditional family structures and gender roles but “sex” itself. Nonetheless, some of the remaining humans still insist on perceiving the ooloi as a combination of male and female even though they are in fact “no such thing. They were themselves—a different sex altogether.”³² Although the humans, and especially the men, locate the ooloi on a spectrum from masculinity to femininity, or as belonging to conventional human gender categories, they are a separate kind of being altogether in the Oankali sex/gender system. Nonetheless, when Paul Titus relays to Lilith his views on the ooloi, he says that he cannot help but refer to the ooloi Nikanj as “he” and recalls that when he first woke from suspended animation that he “thought the ooloi acted like men and women while the males and females acted like eunuchs” and that he “never really lost the habit of thinking of ooloi as male or female.”³³ Resister men in particular are averse to “trading” with the Oankali because this would mean that an ooloi would mediate their sexual intimacy with women. Even though ooloi are neither male nor female and sex with the Oankali is grounded in neurochemistry as opposed to genital contact, resister males nonetheless compare the experience to being “taken like a woman,” which clearly has negative connotations for them.³⁴ The ooloi queer traditional family structures and sexual relationalities. “Cyborg ‘sex’ restores some of the lovely replicative

³¹ Butler, *Lilith's Brood (Dawn)*, 106.

³² Butler, *Lilith's Brood (Imago)*, 524.

³³ Butler, *Lilith's Brood (Dawn)*, 89.

³⁴ Butler, *Lilith's Brood (Dawn)*, 203.

baroque of ferns and invertebrates,” Haraway suggests, which are “nice organic prophylactics against heterosexism.”³⁵ On the one hand, ooloi undo the privileging of genital over other erogenous zones and thus offer a vision of sex which is polymorphously pleasurable. The loss of bodily contact between humans is one of the primary losses which humans within the trilogy mourn. As the editors of *The Sex is Out of This World* have commented, “... even the most banal of science fictions like *Star Trek* can revel in representations of alternate and third genders and the sexual confusion that naturally follows—but in especial regard to *the corporeal manifestation* of said sex and sexuality, these same works often refuse to do what their genre suggests they are best designed to do—to speculate about the nature of differentiated, evolved, or, indeed, ‘alien’ forms of sexual pleasure and expression.”³⁶ Elsewhere, Istvan Csicsery-Ronay, Jr. has commented on how alien form seems to frequently hew towards the humanoid: “It is not rare for human and humanoid aliens to have sex and mate—and to feel the same anxieties about violence and self-loss in the other as in human sexual affairs... the humanoid alien therefore projects a formidable and generally taboo biological difference on to a being whose difference is actually cultural—in other words, it seeks to establish a natural barrier where there is none.”³⁷ Butler’s insectoid Oankali in no way resemble humans in either morphological form or behavior. They instead resemble members of the arthropodic and invertebrate communities, which amplifies the immediate aversion towards the idea of companionable communion with them.

Nonhuman Difference in *Lilith’s Brood*

³⁵ Haraway, “A Cyborg Manifesto,” 292.

³⁶ Ginn and Cornelius, *The Sex is Out of This World*, 5. Ellipsis mine, italics original.

³⁷ Csicsery-Ronay, “Some Things We Know About Aliens,” 16.

Nonhuman difference is at the forefront of Butler's trilogy's concerns. The major tension is summed up pithily by Lilith as she gives advice to her half-human, half-Oankali son, Akin:

Human beings fear difference... Oankali crave difference. Humans persecute their different ones, yet they need them to give themselves definition and status. Oankali seek difference and collect it. They need it to keep themselves from stagnation and overspecialization. If you don't understand this, you will. You'll probably find both tendencies surfacing in your own behavior... When you feel a conflict, try to go the Oankali way. Embrace difference.³⁸

Butler's stance on nonhuman difference is especially evident in the early drafts of a memoiristic essay in which she explains the origins of her interest in writing.³⁹ In one draft fragment, Butler describes how her childhood dog, a cocker spaniel named Baba, was like "another kind of person [looking] back at [her] as [she] looked at him," and that she realized from this encounter that eyes, and the kind of relationality they provoke, are central to any kind of ethical encounter.

Eyes always mattered to me after that. Insect hardly seemed to be eyes at all [sic]. Reptile eyes bothered me because somehow you couldn't see anyone looking out of them. To me that meant I wasn't anyone in particular to a snake or a lizard. Rodent eyes and bird eyes also gave me no indication that they saw me. I found myself much attracted to eyes that saw me. I loved dogs and cats.⁴⁰

Butler predictably frames her realization about relationships with nonhuman (animals) around the common dictum that the "eyes are the window to the soul" and espouses the hierarchies of life intuitive to ideological beliefs like the Great Chain of Belief. That is, "lower" kinds of life do not possess the capacity to relate to others, which is evidenced by the blankness of their stare.

³⁸ Butler, *Lilith's Brood (Adulthood Rites)*, 329.

³⁹ These drafts would later turn into an article published in *Essence* Magazine as "Birth of a Writer," and republished in *Bloodchild and Other Stories* under the title "Positive Obsession." The early drafts of this essay evince a dramatically more substantive concern than the published essay with how relationships with nonhuman animals informed Butler's writing process, and the entire essay at one point was structured completely around a succession of encounters with animals of varying degrees of responsiveness. None of the insights I analyze here are in the final draft, though there exist about a dozen different drafts of this material in the archives.

⁴⁰ Printout manuscript fragment of "Positive Obsession," 1998, OEB 2351, Box 126, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

Particularity is not possible in this gaze for Butler, which then demotes the animal to that “lower” category of animality. When she moves to another animal anecdote, also omitted from the final version, she mentions an experience seeing a chimpanzee for the first time, and how witnessing its isolation and humiliation was confirmed by “[looking] into the animal’s eyes.”⁴¹ Although Butler identifies eyes as central towards relating to nonhuman persons and to her larger ethical project of world-building, the next vignette (again, completely removed from the final version) undercuts this image of Butler as what she calls a “toddler humanitarian” by detailing her childhood fascination with (and complicity in) “slaughter-for-food farm animals” on her grandmother’s desert chicken ranch.⁴² Put simply, Butler records that she drowned chickens for fun in her spare time on the ranch. What she extrapolates from this experience vis-à-vis the process of writing reveals much about the ethos of her later work: “Studying the nonhumans was fine. Killing them for fun wasn’t. This was good for a budding writer to know—especially one who would someday get into science fiction and fantasy. In fact this would be good for any human to know.”⁴³ This early childhood encounter with chickens, whose lives she viewed as disposable in exchange for her entertainment, informed her ideas about what a writer is and should strive be.⁴⁴ We don’t know if Butler ever looked her chicken victims in the eye, but she

⁴¹ Printout manuscript fragment of “Positive Obsession,” 1998, OEB 2351, Box 126, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

⁴² Printout manuscript fragment of “Positive Obsession,” 1998, OEB 2351, Box 126, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

⁴³ Printout manuscript fragment of “Positive Obsession,” 1998, OEB 2356, Box 126, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

⁴⁴ Butler additionally notes that this experience helped her make the connection between written word and living creature. See printout manuscript fragment of “Positive Obsession,” 1995, OEB 2361, Box 126, Octavia E. Butler Papers, The Huntington Library, San Marino, California. The connection between the written word and the living creature is particularly salient when it comes to Butler’s laborious process of naming her characters. The archives reveal sheaths of paper detailing Butler’s experimentation with myriad permutations of names. For instance, when devising the names for the alien Oankali of *Lilith’s Brood* Butler researched Hindu, Swahili, Japanese, and Native American vocabularies. Additional evidence from the archives suggests that Butler was in the process of compiling a name book at the time of her death; she seemed fascinated by all manner of names and meanings of names in various languages.

considers the centrality of the face, and the ability to look into another's eyes and have them return the gaze, in her trilogy.

One fundamental way in which difference is constituted in Butler's trilogy is through recognition of the face, but what constitutes the face is difficult to describe. Despite the persistence of many scholars in describing the Oankali as humanoid, Butler does not describe them as having human form. They have no eyes or ears, and instead have tentacles which look like "[m]urkily translucent, pale gray worms" with which they perceive their surroundings.⁴⁵ When Lilith later grows accustomed to Oankali appearance enough to partake in the sexual pleasures her ooloi, Nikanj, offers, she has a momentary flash of revulsion upon seeing Nikanj seduce another human, and describes it as "an ugly creature with too many head tentacles and not enough of anything that could be called a face."⁴⁶ Alterity depends upon whether or not one can recognize a face, according to philosopher Emmanuel Lévinas. In other words, recognition of the face is a crucial conduit through which intimate alliance can be recognized, and what makes the Other an entity worthy of ethical consideration. When asked in a 1986 interview about how the concept of the face extends to nonhuman animals, Lévinas responded that the question is

Given the sheer volume of detailed notes Butler curated for each of her human character's psychological and physical profiles, including minor characters, it is notable that the act of *naming* seems to be the most important component of the Oankali for her. Compared to human characters made real through foibles and flaws, the alien Oankali appear to be self-evident in that they stand for radical difference in much the same way as animals do in many narratives about nonhuman relationships. One member of a species is much the same as another within this ideological framework, whereas humans are idiosyncratic and particular. The notion that the act of creation is inherently interwoven with the act of naming, that there exists an inextricable link between "the written word and the living creature," in part originates from Genesis. God bestows upon Adam the task of naming the animals, itself a transference of authority and dominion, but of the capacity for relationality with the animals as well. Butler's utilization of biblical names amidst her human characters is quite blatant: Lilith, for example, draws her name from Adam's first wife, who refuses to be submissive to Adam and insists on equality vis-à-vis Adam.

⁴⁵ Butler, *Lilith's Brood (Dawn)*, 18.

⁴⁶ Butler, *Lilith's Brood (Adulthood Rites)*, 286.

inadequate to the task of knowing, that we must dwell in uncertainty over our relationality with the animal.

I cannot say at what moment you have the right to be called “face.” The human face is completely different and only afterwards do we discover the face of an animal. I don’t know if a snake has a face... But there is something in our attraction to an animal... In the dog, what we like is perhaps his childlike character.⁴⁷

The idea of human attraction to an animal as central to being granted the right to be considered a being who has a face clearly hews to the value-laden hierarchy of life which I discussed at length in my introduction. Companionate animals like dogs and cats are more easily granted faceness because they possess features similar to our own, but incompanionates like snakes and lizards might not.⁴⁸ The dog is more easily granted faceness because Lévinas prioritizes what attracts our attention to animals that are likeable; likeable animals often have faces that have only two eyes which appear to look back at you. Lévinas’s uncertainty over the snake’s face vis-à-vis the dog is organized around expressivity, and the recognition of a response reflection in the eyes. How different beings are valued according to this hierarchy is something that David Clark has touched on, since to “deny the snake what was equivocally given to the dog would perhaps betray too clearly how *Dasein*’s point of view is not neutrally indifferent to the ‘biological,’ but anthropocentric and even sentimental in its hierarchization of the living creatures.”⁴⁹ Butler takes up the challenge of granting some measure of faceness to creatures which we might regard as not having a face at all, thus challenging while also being circumscribed by Lévinas’s reticence.

In an unpublished essay, Octavia Butler writes about what “first contact” with a radically different kind of being might look like. Significantly, she says we do not need to look very far to

⁴⁷ Lévinas, “The Name of a Dog, or Natural Rights” in *Animal Philosophy*, 49.

⁴⁸ Lévinas, for example, notes that “... the face, preeminently expression, formulates the first word: the signifier arising at the thrust of his sign, as eyes that look at you.” Lévinas, *Totality and Infinity*, 178.

⁴⁹ Clark, “On Being ‘The Last Kantian in Nazi Germany’” in *Animal Acts*, 182.

speculate on what that possibility may be, because of our abysmal track record with treatment of nonhuman animals. She notes that “in a sense... we have already had contact with intelligent, nonhuman species,” that “[m]ost of us simply haven’t realized it yet.”⁵⁰

How would humans in general see the nonhumans? If we saw them as ridiculous or ugly or in any way repulsive, they would fare less well at our hands. We have always attributed greater value to that which we considered beautiful. It might also be better for the new species if it were not humanoid. The more human it appeared to be, the more we would expect it to think and behave as we do—and the more offended we would be by its deviations from the human norm. Chimpanzees and Gorillas, for instance, are considered ugly because they look so much like us, and yet are so different.⁵¹

The Oankali are, in both appearance and behavior, far outside the domain of the humanoid and primatoid. Butler purposefully rendered her insectoid aliens as morphologically repulsive as she could imagine so that their colonization of our genes and reproductive future might usher forth a powerful ironic reversal of the kinds of relationships she describes in the above passage. It’s not so much a matter of how the Oankali would fare in *our* hands regardless of how “ugly” or “repulsive” they are to us, but rather, how *we* will fare in the hands of nonhumans who might hold us to a different measure of value. The various scenarios of alien encounter operative in the American cultural imaginary are threefold, according to Gomel: confrontation, assimilation, and transformation.⁵² Gomel locates Butler’s trilogy in the assimilation model, and reductively notes that assimilation is the typical *modus operandi* for the majority of feminist science fiction. I disagree that assimilation is the model Butler upholds in her trilogy—the events that occur are not, as Gomel would have it, a “peaceful alternative,” but rather the outcome of limited and less

⁵⁰ Carbon copy of typewritten manuscript of “How you envisage first contact with an alien species?” with Butler’s handwritten notes and corrections, 1980, OEB 819, Box 48, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

⁵¹ Carbon copy of typewritten manuscript of “How you envisage first contact with an alien species?” with Butler’s handwritten notes and corrections, 1980, OEB 819, Box 48, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

⁵² Gomel, *Science Fiction, Alien Encounters, and the Ethics of Posthumanism*.

than ideal choices. In other words, the last remaining humans in both “Bloodchild” and *Lilith’s Brood* make do with a subjugated life amidst insectoid aliens because this is what they must do to survive. There is no denying the physical and emotional manipulation the Oankali subject the humans to, and there is no denying the resonances of this treatment with the United States’ brutal and ongoing subjugation of black subjects.

Identity Politics and Speculative Fiction

One of the primary motivations of speculative fiction is to imagine the world otherwise. It is a category that includes “all literature that takes place in a universe slightly different than our own” and which presents a unique opportunity for authors to “ask relevant questions about [their] own society in a way that would prove provocative in more mainstream forms,” as David Wyatt has noted.⁵³ As evidenced by the voluminous research Butler conducted for each of her novels and short stories, she was aware of societal hot topics like genetic engineering and nuclear politics.

Speculative fiction by African-American authors has tended to take into account a fuller and more diverse range of characters than predominately white speculative fiction. The term afrofuturism has come to be applied to authors like Octavia Butler, Samuel Delany, and Nalo Hopkinson in the past several decades, and it refers to a subgenre of speculative fiction, mostly but not exclusively written by black authors, and which features black protagonists and draws on the rich cultural heritage of blackness in American culture, with reference to the Pan-African tradition and the African diaspora. Afrofuturist scholars have linked the pervasive alien abduction narrative found in a plethora of speculative fiction narratives to the abduction of

⁵³ Wyatt, “Speculative Fiction,” in *The Black Imagination*, 2.

Africans from their homeland and forced emigration to the Americas.⁵⁴ Afrofuturist science fiction in particular encourages readers to think about, as Sandra Jackson and Julie Moody-Freeman note,

...imagined futures in which African descendant people as well as other people of color are neither conspicuously absent nor marginalized as background or expendable characters, but...instead not only present but rather active agents— protagonists and heroes— in events which take place here on the planet Earth or elsewhere in the universe, set in the past, alternative pasts, distant and near future times.⁵⁵

In a genre where most of the protagonists are white males and issues of gender and race are neither systematically considered nor inherent to plot progression, afrofuturist writers bring sexism and racism to the fore.⁵⁶

Despite being a genre which prides itself on progressive politics, science fiction has historically turned a blind eye to issues of racism and sexism, though classism has been well scrutinized. “Science fiction often talks about race by not talking about race, makes real aliens, has hidden race dialogues,” Isiah Lavendar III comments in *Race in American Science Fiction*, further asserting that “even though it is a literature that talks a lot about underclasses or oppressed classes, it does so from a privileged if somewhat generic white space.”⁵⁷ Scholars working in this field have defined critical frameworks that pay attention to racial dynamics under

⁵⁴ For instance, Isiah Lavendar III notes how *Adulthood Rites*, which tells Akin’s story of abduction, captivity, and conversion, alludes to Olaudah Equiano’s *The Interesting Narrative of the Life of Olaudah Equiano* (1789).

⁵⁵ Jackson and Moody-Freeman, *The Black Imagination*, 2.

⁵⁶ While Samuel Delany and Octavia Butler are frequently held up as the two progenitors of black speculative fiction, the tradition goes much further back. W.E.B. Du Bois wrote a science fiction short story called “The Comet” (1920), which tells the story of a black man, Jim Davis, and a wealthy white woman, Julia, who are the sole survivors of New York City after a comet strikes and kills everyone with toxic gas. Going even a few more decades back, Charles Chesnut wrote a science fiction short story called “The Goophered Grapevine” (1887). George Schuyler published a speculative novel during the Harlem Renaissance called *Black No More* (1931) wherein he imagines a world where black people can turn their skin white, and traces the cultural effects of such a possibility on the racial dynamics of the United States.

⁵⁷ Lavender, *Race in American Science Fiction*, 7.

several names. Lavendar, for example prefers the term “blackground” to afrofuturism, stating that as an “interpretative/critical effect” the term is designed to “instigate significant change in how we approach race and racism in the genre.”⁵⁸ In other words, blackground takes into account *all* of the signifying practices, including erasures, omissions, and occlusions, which make up the visibility or invisibility of blackness on page and on screen. While afrofuturism celebrates and makes visible blackness and its cultural heritages, blackground encompasses texts where the absence of race is just as significant and meaningful.

The specter of slavery saturates *Lilith’s Brood*. When Lilith first meets Jdahya, when he explains that the Oankali “trade themselves,” she assumes that this must mean they trade in slaves but he then replies, “No, We’ve never done that.”⁵⁹ The trilogy interprets humanity’s enslavement to the Oankali as mirroring that of slaves and their owners during the era of American slavery. Humans “have been constituted as the colonized Other by” and “are like animals to” the Oankali, who reduce human beings to “package(s) of genes,” as Michelle Green argues.⁶⁰ When Nikanj impregnates Lilith using genetic material it collected from her deceased lover Joseph, Lilith objects because the insemination occurred without her consent, so she experiences it as an invasion of her body. Nikanj’s disturbing justification is that it was able to tell what she wanted without her having to vocalize it. The lack of agency Lilith experiences in her enforced insemination mirrors pregnancies that slaves endure, as Amanda Boulter explains: “Lilith’s response to her pregnancy echoes the ambivalent feelings of these women slaves whose pregnancies were the result of forced matings or rape.”⁶¹ While the intimate encounters that

⁵⁸ Typewritten manuscript draft fragment of *Adulthood Rites*, before 1988, OEB 18, Box 1, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

⁵⁹ Butler, *Lilith’s Brood (Dawn)*, 24.

⁶⁰ Green, “There Goes the Neighborhood” in *Utopian and Science Fiction by Women*, 188.

⁶¹ Boulter, “Polymorphous Futures: Octavia E. Butler’s *Xenogenesis* Trilogy,” 177.

humans like Lilith experience with the Oankali are in many ways pleasurable, they resonate with the kinds of psychological and physical violences, coercion, manipulation, that women slaves endured.

The genre's tendency to whitewash racial dynamics resonates with Butler's experiences with lack of diversity in science fiction in the 1930s and 40s, even as writers experimented with how to represent nonhuman relationality. She found that although writers concerned themselves with myriad creative visions of nonhuman beings, the humans which these nonhuman beings interacted with were extremely homogenous and only represented one slender sliver of human life.

Writers concerned themselves with human-nonhuman relations—the humans and the insectoids, reptiloids, octopods. The humans and the green beings, orange beings, tiny gold beings. The humans were almost entirely white and nearly always male. White women fared better than blacks since it was always clear that white women existed even if it was only to get in the way occasionally or require rescuing. Blacks were usually totally ignored as they were long ignored or quickly passed over in most mainstream fiction of not too long ago. One of the things I became aware of from my reading as I grew up was that as a black woman, I did not exist.⁶²

Butler's fiction provides an alternative speculative vista of what might happen when humans and nonhumans (particularly aliens) encounter one another. It does not look like “the British Empire in space” or *Star Trek*, where white men voyage the stars and colonize alien lands with imperialist vigor; alien encounter in Butler's fiction instead requires an ironic reversal of power for all humans involved, and necessitates that they “pay the rent” and make an “unusual accommodation” for continued survival.⁶³ Lilith Iyapo's occupation of the central protagonist role in *Dawn* as an African-American woman subverts the kinds of paltry representations that Butler critiques in this passage. Lilith needs no rescuing, and although her agency is clipped by

⁶² Typewritten manuscript draft of “Presentation at Moorpark: Seven Story Questions,” April 8, 1978, OEB 2368, Box 126, Octavia E. Butler Papers, The Huntington Library, San Marino, California.

⁶³ Butler, “Afterword” to “Bloodchild,” 30-31.

the Oankali in such critical matters as consent to impregnation, she nonetheless becomes an effective leader among humans, Oankali, and human-Oankali hybrids, by making due with limited resources and choices. Butler recalls how racial dynamics undergirded a conversation she once had with a white male science fiction magazine editor at a convention.

[H]e didn't think blacks should be included in science fiction stories because they changed the character of the stories; that if you put in a black, all of a sudden the focus is on this person... if you were going to write about some sort of racial problem, that would be absolutely the only reason he could see for including a black... He went on to say that... perhaps you could use an alien instead and get rid of all this messiness and all those people that we don't want to deal with.⁶⁴

Butler's recounting of the magazine editor's logic clearly shows that his line of thought depends upon the idea that an African-American character would and should only surface in the genre as an exemplar of Otherness in opposition to a monolithic Same (clearly white masculinity). By this logic, if aliens are in the narrative, an African-American character would be extraneous, since the alien has already accomplished the task of performing alterity and not-self-ness for the target audience (white men). But for Butler, for whom these speculative worlds so frequently do not include identity knowledges beyond the dominant paradigm of white masculinity, her divergently identifying characters operate on an idiosyncratic and separate level from her insectoid aliens, because they both do different work for the interpersonal dynamics of her fiction.

In a short nonfiction essay called "The Monophobic Response," Butler calls for us to think more deeply about how xenophobia operates within American social order through the figure of the alien. Instead of envisioning aliens as totally unrelatable beings which invade from outer space, she wonders what commonalities we might share with such "distant siblings:"

The universe has other children... the distant siblings we've longed for. What will we feel? Relief? Fascination? Terror? Hostility?... Perhaps for a moment—only a moment—

⁶⁴ Beal, "Black Scholar Interview with Octavia Butler: Black Women and the Science Fiction Genre," 18.

this affront will bring us together, all human, and much more alike than different... What will be born, then, of such a strange and ironic union?⁶⁵

The cross-species intimate encounters, and resulting hybridizations, that Butler envisions in “Bloodchild” and *Lilith’s Brood* are in part a response to the tendency in science fiction to dismiss the importance of heterogeneity and let aliens and other nonhuman creatures stand in for all difference. Butler’s introduction of insect-like aliens with whom humans must enmesh themselves intimately, by working through disgust to come to an ambivalent coercive acceptance, counters masculinist conquest narratives which often eschew the kinds of intersectional considerations that Butler takes seriously. While the Oankali and Tlic are disgusting and alien, and the humans in these narratives rightly feel conflicted about how they are used for reproductive purposes, there is no opportunity to escape and bodily co-mingling is the price for survival. Butler’s creation of these insect-like aliens offers a productive lens for opening up alternative possibilities in speculative fiction for more diverse representation, and for grappling with the psychology of alien encounter beyond imperialist domination or prurient masculine fantasies of sexual gratification.

⁶⁵ Butler, “The Monophobic Response,” 416.

CODA

This dissertation has attempted to account for the strange ways in which insects and insect-like creatures became slippery signifiers in postwar American culture, and how they came to embody a host of concerns about what it means to live in a world compromised by the potentiality of nuclear war. The particular texts that I examine share in common distress over how North American soil has been affected by the bomb, both materially and symbolically—be it in the form of threatening bugs grown monstrous due to radiation, or imagined worlds where humans must share space with mutant hybrids, androids, and alien Others.

In this coda I gesture towards a series of post-1980s texts (with a few references reaching into the past) to suggest the continuing relevance of insectoid figuration to contemporary cultural anxieties. Since my aim is gestural rather than thoroughly analytic, I will move through these texts quickly to provide a sense of the myriad avenues in which such concerns are still just as relevant today. For example, Butler, writing in the late 1980s, conceptualized her aliens and their coercive desires as a direct response to the kind of nuclear endgame imagined during Reagan era discussions of a “winnable nuclear war,” but she was also just as deeply enmeshed in the science of genetic engineering. More current preoccupations with insectoid figuration may still contain embedded concerns about political violence, the role that science plays in our understanding of human-insect relationships, and a larger fear of having been eclipsed by a more resilient and

hardy species, but these concerns pertain more to such concepts as bioengineering, mass extinction, and evolutionary theory. In his survey of how insects have been used in the artworld in the 1990s, Michael Sands notes that “[t]he culture of the 1990s is as likely to embrace science and to wed it with art as it is to treat science as the breeding ground of uncontrollable monsters.”¹ Even though insectoid figuration may be deployed towards different ends from the 1990s up until now, it nonetheless shows up in similar discursive registers. For example, the big bug films express pervasive anxiety over foreign threats invading national soil, but they also show an anxiety over how changing demographics (women in the workplace, etc.) come from within. The anti-immigration and terrorist discourses of today, while they may manifest idiosyncratic fears over how American soil might be compromised by alien Others, are structurally quite similar. In this conclusion, I look towards a constellation of more recent examples of how insects serve as protagonists, as symbolic registers, and as the raw material of the world.

Interlopers Amidst Us: From Camouflaged Imitator in Donald Wollheim’s “Mimic” to Genetic Renegade in Guillermo del Toro’s *Mimic*

Many post 1946 films which feature insects do not depict insects as towering menaces, loveable protagonists, or helpful henchmen, yet they nonetheless reflect concerns about what is going on at the time. For example, in the 1970s, a slew of ecoterror films depicted insects as displacing humanity as a consequence of our degradation of the environment and its resources. Africanized bees and invasive species ran rampant across the screen at this time.² After the 1970s ecoterror

¹ Sands, “Buzz,” 38.

² See *Killer Bees* (1974), *The Savage Bees* (1976), *Empire of the Ants* (1977), *The Swarm* (1978), and *The Bees* (1978). See also *Ants* (1977), which features a more localized threat pertaining to housing and land development, and *Phase IV* (1974) in which desert ants inexplicably and quite suddenly develop an intelligent hive mind and retaliate against humans.

films which espoused fears about invasive insect species wreaking havoc on American soil and citizens, films moving into the 1990s deal more explicitly with the consequences of biotechnologies, such as tampering with engineering.

Guillermo del Toro's *Mimic* (1997), based on a 1950 short story by Donald Wollheim, draws explicitly from nature's mimicry language to critique human dominion over nature in terms of genetic engineering. The narrator of "Mimic" is an entomology museum curator, and conveys that "[nature] is a strange thing." "You realize how nature uses the art of camouflage. There are twig insects that look exactly like a leaf or a branch of a tree. Exactly. Even to having phony vein markings that look just like the real leaf's."³ The short story centers on a mysterious, cloaked figure who studiously avoids everyone, but particularly women, on the street. When strange noises emanate from the stranger's apartment, the narrator and a policeman break down the door and investigate the apartment. They discover the stranger prostrate on the floor. Upon further examination, the narrator is startled to realize that the features he perceived as humanoid from a distance only mimic human features, "as [where] the noise should have been there were dark shadowings that made the appearance of a nose"; the stranger's suit was in fact "a huge black wing sheath."⁴ The stranger was not male at all, but a female insect who perished upon depositing her eggs. Wollheim's short story concentrates on the deceptive role of mimicry and ponders its role in the natural order:

We knew of army ants and their imitators, yet it never occurred to us that we too were army ants of a sort. We knew of stick insects and it never occurred to us that there might be others that disguise themselves to fool, not other animals, but the supreme animal himself—man.⁵

³ Wollheim, "Mimic," 120.

⁴ Wollheim, "Mimic," 121-22.

⁵ Wollheim, "Mimic," 122.

The true horror of the short story spans out quickly from this particularized example. Shaken from the experience of witnessing the creature's young flutter into the distance, he notices that what he initially perceived as a chimney "suddenly vibrate, oddly," and then a "great, flat-winged thing detached itself silently from the surface of the real chimney and darted hungrily after the cloud of flying things."⁶ Wollheim's compact short story ponders a scenario in which insect mimicry has allowed creatures to infiltrate human life in much the same way as Philip K. Dick imagines androids and his theological conception of VALIS/ZEBRA to be adept at mimicking human form in the first instance, and our environs in the second instance.

In del Toro's adaptation of Wollheim's "Mimic," a strange creature lurks the subterranean depths of New York City's subways, occasionally emerging to prey on humans. The film's opening montage overlays insect specimens across New York architecture plans, headlines about mounting death tolls, and cut-up photographs of children pinned and mounted like museum specimens: from the start, the film expresses anxiety over the imbrication between predatory insects, the sanctity of childhood, and national security. We soon learn that New York City has been struck by Strickler's disease, carried by the common cockroach: the main protagonist, Dr. Susan Tyler (played by Mira Sorvino), a Professor of Entomology at New York State University, tours a cavernous room full of quarantined children and is informed that "most of these kids won't make it." Dr. Tyler develops a solution, as she explains during a CDC press conference:

So, with the aid of genetics labs across the country, we recombined termite and mantid DNA to create a biological counteragent, a new species to be our six-legged ally in wiping out the roach population. We call it the "Judas" breed."

⁶ Wollheim, "Mimic," 122.

Despite the fact that the genetically modified Judas cockroach was designed to be infertile, when some local kids bring a “weird bug” to Dr. Tyler, she discovers that the Judas breed has found a way to reproduce. While Dr. Tyler’s invention of the Judas breed may reflect concerns similar to those of 1950s films featuring big bugs in terms of tampering with Nature’s laws and suffering unintended consequences, the concerns seem to have shifted towards genetic engineering and urban epidemic.

Much like Ridley Scott’s *Alien*, a film which del Toro publicly adores and explicitly references throughout *Mimic*, the narrative of *Mimic* is concerned with motherhood and reproduction. The original version of *Mimic* highlights the rapid reproductive cycle of insects in juxtaposition to Dr. Tyler’s inability to conceive. In the recently released Director’s Cut, Dr. Tyler’s pregnancy is made explicit. Dr. Tyler’s struggle to conceive, the primarily youthful demographic which Strickler’s disease affects, the two local children victimized by the human-formed Judas mutation, and the autistic boy, Chuy, who mimics the Judas mutation’s clicking and clacking noises, all underscore the film’s preoccupation with motherhood and reproduction. *Mimic* pits humans against insects via reproductive nexuses similarly to the big bug films. Remember that in *Them!*, Pat Medford, another woman specializing in entomological knowledge, quickly becomes the expert on the queen ant’s reproductive locale because of her nearness to the feminine experience. Susan Tyler, as an aspiring mother and as the creator of the Judas bug, also shares a nearness with the creature which uniquely positions her to enter its lair and outwit it. The Judas breed’s real threat, according to Elisabeth Bronfen, is not only that it crossdresses across species, but that del Toro “[offers] us a cruelly self-conscious parable about the way we police the boundary between ethnic groups by turning the unwelcome foreign body

into a dangerous termite that can be eradicated.”⁷ The Judas has passed among us—it stands on subway platforms with us, it walks the street at night with us. Whereas Wollheim accentuates the role that insect camouflage plays in this strange creature’s deception of the humans around it, del Toro’s cinematic adaptation pits humans against their own mutated creation as a reminder of the unintended consequences of tampering with nature.

Insectoid Xenophobia in Immigration Discourse and the Racial Politics of *District 9*

Insects still serve as compelling symbolic registers for understanding the mechanisms by which xenophobia operates. The big bug films from the 1950s articulated a nascent terror at how national borders were potentially compromised by the Communists who threatened to American social order. The kind of alien Others that North America now frets might compromise national borders take the form of immigrants instead. The science fiction thriller *District 9* (2009) is a prime example. A speculative alternative history of Johannesburg, the political backdrop of *District 9* has apparent parallels with the events in District 6 of Cape Town during apartheid. The film espouses complex structures of feeling which resonate with the kinds of racist ideology by which human “aliens” such as immigrants are dehumanized through animalization. The bug-like “prawns” of *District 9* offer an updated model of the alien Other, whose subjectivity may be just as opaque as that of Octavia Butler’s Tlic and Oankali, but which nonetheless offers insight into how xenophobia operates.

District 9 features an alien encounter in which the aliens are not invaders looking to colonize Earth but sick refugees in search of help. Humans initially agree to help the aliens, who are derogatorily called “prawns” because of their hard carapaces and disgusting-looking

⁷ Bronfen, “Redressing Grievances: Cross-Dressing Pleasure with the Law,” 245.

mandibles. Humans quickly insist upon alien segregation, and emergency camps are set up at a distance from the city. The prawns are in effect refugees who live in squalor and poverty, and often subject to violent abuse. *District 9* can be read as a progressive tale of human-alien coexistence, yet it can also be read as what Veracini calls a contribution to the genre of settler colonial cinema in that it articulates a “specifically settler colonial need to *transfer* indigenous people away” as well as “*indigenise* settler subjectivities.”⁸ Not only are the aliens treated poorly, but the film’s representation of Nigerians repugnantly relies upon stereotypes of Nigerians as criminals, thieves, mercenaries, and liars, and, as van Veuren has pointed out, the “clumsiness of these caricatures has drawn much ire, relying on voodoo/mercenary/cannibal tropes.”⁹

The narrative trajectory of *District 9* focuses on a petty bureaucratic named Wikus van der Mewer, and on his transformation from human to alien after having accidentally touched an alien substance which catalyzes his transformation. Wikus’s contact with this alien substance, and subsequent transformation, “[evokes] recurring tropes of European representations of colonial encounters” such as the “paranoid anxiety concerning the possibility of contamination” and “the fantasy of being perceived by indigenous Others as a demigod,” according to Veracini.¹⁰ Wikus’s transformation is similar to that of Seth Brundle’s into the Brundlefly in David Cronenberg’s *The Fly* (1986), or even that of Gregor in Franz Kafka’s *The Metamorphosis* (1915), though Kafka does not linger on the bodily processes of the metamorphosis, as it has already happened by the time the reader comes on the scene. Deliberately playing upon the body horror genre, the film gazes both in horror and wonderment at Wikus’s transformation, which is

⁸ Veracini, “*District 9* and *Avatar*: Science Fiction and Settler Colonialism, 361.

⁹ van Veuren, “Tooth and Nail: Anxious Bodies in Neill Blomkamp’s *District 9*,” 573.

¹⁰ Veracini, “*District 9* and *Avatar*: Science Fiction and Settler Colonialism, 357-58.

only heightened by the aesthetic style of the film. Told through documentary style footage meant to heighten the narrative's realism as well as the viewer's identification with Wikus, *District 9* relies upon gritty realism to fully convey the full import of Wikus's transformation.

Wikus also comes into an ambivalent relationship with one of the aliens, named Cristopher Johnson. Cristopher is masculinized and has a son, and has been attempting to fix the mothership alien technology to save his people from the awful conditions they have been living in within the District 9 encampment. How the bodies of prawns are represented vis-à-vis human bodies confirms my assertion that animalization—and more particularly, insectoid figuration—often paves the path towards dehumanization. The bodies of the prawns, and Wikus's transformation, bring to the fore the complex way in which metaphor, race, and Otherness are enmeshed, as van Veuren suggests.

[The prawns] seem not to be quite fully universal signifiers of otherness, but rather doppelgangers of the black working class or poor shack dwellers who feature marginally in the film without being brought into the limelight...[T]here is a sense that anxieties around blackness and poverty are being somatised in a language that moves closer to the signifying strategies of the unconscious: metonymy and metaphor."¹¹

In this way, van Veuren continues, Wikus's "physical, visceral body becomes a microcosmic theatre... as he metonymically enacts the horror of the collapse of obsessively maintained borders."¹² Not only are the insectoid prawns of *District 9* rendered pitiable subjects, they are made even more pitiable through the transformation of a human into a prawn, even as this transformation is meant to be disgusting and repulsive. Unlike the big bug films of the 1950s, in which the motives, desires, and intentions of the bugs are utterly inscrutable in the face of their widespread destruction, the prawns from *District 9* reveal how animalization is at play in

¹¹ van Veuren, "Tooth and Nail: Anxious Bodies in Neill Blomkamp's *District 9*," 574.

¹² van Veuren, "Tooth and Nail: Anxious Bodies in Neill Blomkamp's *District 9*," 576.

elaborating the complex matrices of race, gender, nationhood, and species at play in the post-apartheid imaginary of Johannesburg.

Insectoid metonymy is deployed in *District 9* to delve deeper into the mechanics of xenophobia. In Jeannie Shinozuka's compelling article concerning how Japanese immigration and the introduction of the invasive Japanese beetle on American soil in the early 20th century were "demonized...as mutually constitutive...deadly yellow perils," she argues that naturalized rhetoric was applied to Japanese immigrants whereas humanizing rhetoric was applied to the Japanese beetle.¹³ The metonymical slippage in rhetoric which addressed Japanese immigrants and beetles depends upon xenophobic and anti-Asian sentiments, but more importantly, deploys the "umbrella metaphor of Japanese immigrants as invaders [to form] the central vehicle that dehumanized them and persuaded the larger American public that these foreigners ought to be eradicated."¹⁴ The use of contamination, contagion, and invasion metaphors and metonyms are a crucial component of xenophobic rhetoric, especially when geared towards immigrations and "national aliens." Chicano studies scholar Otto Santa Ana has made the point that "the most racist metaphor in today's public discourse, IMMIGRANT AS ANIMAL, continues to place immigrants well below citizens on a scale of humanity."¹⁵ When the nation is figured as a body whose boundaries must be protected, those wishing to cross borders then get figured as like parasites which seek to penetrate those boundaries, thus rendering them more permeable and precarious. Especially in the anti-immigration rhetoric that suffuses the contemporary conservative North American political rhetoric, immigrants are figured as what Andreas Musolff terms a "racial socio-parasite," and are even suspected of carrying across the borders

¹³ Shinozuka, "Deadly Perils: Japanese Beetles and the Pestilential Immigrant, 1920s-1930s." 831.

¹⁴ Shinozuka, "Deadly Perils: Japanese Beetles and the Pestilential Immigrant, 1920s-1930s." 845.

¹⁵ Santa Ana, "'Like an animal I was treated': Anti-Immigrant Metaphor in US Public Discourse," 847.

“(bio)parasite-induced diseases” like Chagas Disease or the Zika Virus.¹⁶ With the recent Chagas outbreak of late 2015, one need only take a cursory glance at internet comment threads to understand the strong rhetorical link between Mexican immigration and cultural panic about Chagas. In Jennie Erin Smith’s *New Yorker* article, “America’s War on the Kissing Bug,” she notes that the recent flourish of funded studies on Chagas has given the impression that it is “a new threat, with some articles in the press linking it to climate change or illegal immigration,” and that even in 2007, “it was generally assumed that immigrants and their children were the only people at risk” of being infected.¹⁷ As this example attests, figuration is far from harmless. Representations and rhetoric can be dangerous and can catalyze devastating and often fatal material effects for very real beings.

Whereas *Mimic* shows how an insectoid creature camouflages itself as human to prey on us, *District 9* positions its insectoid aliens as pitiable subjects whose paltry life circumstances challenge the film viewer to overcome disgust and arrive at a more sympathetic perspective. There are myriad ways in which insect metonymy has been utilized to dehumanize human beings. “In the scale of dehumanization,” Sam Keen writes of World War II propaganda posters and political cartoons in which archetypes are characterized by different aspects of otherness and alienness, “we drop from the midpoint of the subhuman barbarian to the nonhuman, from the savage to the animal... The lower down in the animal phyla the images descend, the greater

¹⁶ Musolff, “From Social to Biological Parasites and Back: The Conceptual Career of a Metaphor,” 27.

¹⁷ Smith, “America’s War on the Kissing Bug,” <http://www.newyorker.com/tech/elements/americas-war-on-the-kissing-bug-and-chagas-disease>. These concerns are also evident in articles such as “Deadly Diseases Crossing Border with Illegal Immigrants,” by Elizabeth Lee Vliet on the AAPS (Association of American Physicians and Surgeons) website, June 25, 2014. Vliet warns that a “flood of illegals has massively surged at our southwestern borders,” and that [c]arried by this tsunami of illegals are the invisible ‘travelers’ our politicians don’t like to mention.” Vliet’s ominous rhetoric very closely mirrors the kind of rhetoric that Shinozuka examines in government documents and mass media regarding the linkage between Japanese immigrants and Japanese beetles.

sanction is given to the soldier to become an exterminator of pests.”¹⁸ Making a similar point about the extent of violence being proportionally greater the “lower” the life form a human is being compared to, Steuter and Willis note that “if the Other is so far down the evolutionary ladder that it is fundamentally without senses or thought, then normal checks to cruelty or aggression do not apply.”¹⁹ The use of animalized language in order to dehumanize society’s undesirables is particularly common in regards to insects and other bugs who are “vile” and “filthy.” These “vermin” must be exterminated in order to purify the human race, according to such dehumanizing logic. The founder of Genocide Watch, Gregory H. Stanton, emphasizes that dehumanization is inherent to the rhetoric of genocide. “One group,” he writes, “denies the humanity of the other group. Members of it are equated with animals, vermin, insects, or diseases.”²⁰ The comparison depends upon a deeply ingrained understanding of insects as threatening human existence. Jewish and Polish people were depicted by Nazi Germany propaganda as filthy vermin, particularly cockroaches, lice, and rats.²¹ Mexican immigrants are figured in contemporary U.S. rhetoric about national borders as cockroaches, also suggesting a link between migration and infestation/invasion.²² In a broader sense, this dissertation probes not just how violence against insects is represented and justified in text on screen, an extermination which is relatively bloodless and trivialized, but also how violence towards abjected Others is abstracted through metonymic parallels to insects, since pain and suffering are somewhat elided through such abstraction.

¹⁸ Keen, *Faces of the Enemy*, 60-61.

¹⁹ Steuter and Willis, “The Dangers of Dehumanization,” in *Images that Injure*,” 47.

²⁰ Stanton, “The Eight Stages of Genocide.” *Genocide Watch*.

²¹ Weinberg’s *Germany, Hitler, and World War II: Essays in Modern German and World History*, 42. He observes that for many Germans in the Weimar Republic, Poland was a vile abomination, and its people seen as “an East European species of cockroach.” Also see Wolfgang Mieder’s “Proverbs in Nazi Germany: The Promulgation of Anti-Semitism and Stereotypes through Folklore.”

²² Santa Ana, *Brown Tide Rising: Metaphors of Latinos in Contemporary American Public Discourse*.

Social Citizens in Miniature: Affective Belonging in a Corporatized Hive

Recent animated children's films like *Antz*, *A Bug's Life*, and *Bee Movie*, to name just a few, render social insects as miniature citizens caught in the cogs of corporatized work culture, and discontented with their insignificant drone role. In these films, individualistic male insect protagonists struggle to belong in social colonies where conformity, corporatization, and monotony are preferred.

In DreamWorks Animation's *Antz* (1998), the neurotic individualist worker ant, Z-4195, expresses his discontentment with the "whole gungho superorganism thing" and laments how every ant in the colony is a "mindless zombie capitulating to an oppressive system." As an individualist in a strictly conformist caste-based society, Z longs to freely express himself. Disney/Pixar's update of Aesop's "The Ant and the Grasshopper," *A Bug's Life* (1998), features another male drone worker with aspirations towards fantastical inventions which he hopes will expedite the colony's food gathering. But when his grain-harvesting invention accidentally destroys an offering they must make to greedy grasshoppers who demand the majority of the colony's food supply, he sets off in search of warrior bugs to assist in overthrowing the grasshoppers' demands. Finally, in *Bee Movie* (2007), when an intrepid young male bee ventures beyond the hive for the first time in his life, he is horrified to discover that humans have been stealing honey for their own consumption. All three films are concerned with the relationship of their individualist protagonists to the colony's productivity, which has been threatened by a villain either internal or external to the colony. Each film animates insects as anthropomorphic citizens clashing and co-existing in a miniaturized society humorously designed to reflect our

own. The tensions between these individualist insects, the conformist strictures of their respective colonies, and the perils of the world beyond, reveal a cluster of critiques of American capitalism, consumerism, and class.

The last few decades have witnessed a veritable onslaught of animated children's films featuring bug protagonists. *Antz* and *A Bug's Life* were both released in 1998, not entirely by coincidence, as Pixar and Dreamworks publically feuded over idea-stealing. In 2006, another animated film featuring an ant colony in peril was released. Based on a 1999 children's book of the same name by John Nickle, *The Ant Bully* tells the tale of a young boy who is shrunk down to ant-size by an "ant wizard" after he has terrorized the nest one too many times. Known as "The Destroyer" by the terrorized ants, Lucas's punishment is to learn how to "be like an ant," and he eventually learns how to be compassionate towards beings unlike himself by experiencing not just their tribulations but their extraordinary capacities. Even beyond the plethora of animated children's movies that draw from the richness of the insect microcosmos, there exist plenty of films geared towards adults—ranging from comedic to horrific to action-packed—that utilize bugs as affectively startling protagonists.

While *Antz* shares some attributes in common with *A Bug's Life*, the kinds of collective societies they envision are radically different. Flik enjoys an idiosyncratic name, yet the male drone worker in *Antz* has a letter followed by a string of numbers, which heightens the sense that *Antz* will be driven by caste-based division of labor more than *A Bug's Life*. Instead of bullying grasshoppers, the power-hungry General Mandible seeks to overthrow the queen ant's benevolent reign in favor of a totalitarian regime. Divisions of labor are clear in *Antz*; the kind of work performed and the ant's body morphology determine what work he or she is selected to perform. Z's male drone status is visually emphasized by his scrawniness in contrast to the more

muscular fighter ants which tower several heads above him. While all the ants in *A Bug's Life* possess similar body structures and seem to share colony tasks equally, in *Antz* worker (and associated class) status are literally written on the body.

In contrast to *Antz* and *A Bug's Life*, *Bee Movie* engages much more substantively with how the insect world intersects with the human world. When Barry the Bee realizes that humans profited from bee labor by selling and consuming honey, he carries out a reconnaissance mission to Honey Farms and discovers that smokers are used to drug bees while extracting the honey they have produced. When Barry takes humanity to court, the defender makes clear that he considers an insect suing humanity absurd.

My grandmother was a simple woman born on a farm, she believed it was man's divine right to benefit from the bounty of nature God put before us. If we were to live in the topsy-turvy world Mr. Benson imagines, just think of what it would mean? Maybe I would have to negotiate with the silkworm for the elastic in my britches!

Nonetheless, Barry wins by exposing the smokers that humans use to safely extract honey from bees. He proclaims "Is this what Nature intended for us? To be forcibly addicted to these smoke machines, in manmade wooden-slat work camps? Living out our lives as honey slaves to the white man?" to which the defender worriedly responds that Barry is "playing the species card."

In animated children's films, inanimate objects and animals are often imbued with anthropomorphic features which make them more relatable as protagonists. In the case of these films, anthropomorphism serves to individuate protagonists as heroes. Insects as hero protagonists may seem a strange idea, especially as cute or likeable characters, especially since they are more frequently deployed as instruments of horror in film. Z, Flik, and Barry are successful insect protagonists because their small size simultaneously reminds the viewer of their relative insignificance in the world while maintaining optimism about the extent to which an

individual can make a difference. More importantly, likeable insect protagonists make the cognitively strange a bit more familiar.

The ants in *Them!* and almost all other big bug films of the 1950s can *only* be abject aliens who need to be eradicated for the sake of humanity, and there's no space to articulate insect needs, desires, wishes, projective as they may be. Yet with these three films, insects are granted protagonist status and the desires of the individual insect in relation to his colony take center stage. Whereas *Them!* aims to metaphorize giant irradiated ants as alien Others who threaten not just the boundaries of national security but our very lives, the animated films I have discussed seek to familiarize the ants through creative acts of anthropomorphism and heroic feats of daring and strength.

A Superhero Twist on the Insect-Sized Man

In my first chapter on how monstrous and mutated giant bugs skittered across the screen in 1950s cinema, I briefly discuss how *The Incredible Shrinking Man* contends with the phenomenological experience of the world as microcosmic, as *like* that of a bug. The kinds of concerns that *The Incredible Shrinking Man* raises about scalar proportion arise in the most recent North American film released which contends substantively with insects as a powerful agential presence. In Marvel's 2015 blockbuster superhero movie, *Ant-Man*, the eponymous protagonist (played by Paul Rudd) is able to toggle back and forth between man-size and ant-size, thanks to a physics-defying suit. Ant-Man governs a multi-species swarm of ants that do his bidding. In contrast to the ants from *Them!*, who are too alien to salvage as allies in the world, the ants from *Ant-Man* are allies in a war against evil. Although *Ant-Man* attempts to situate Ant-Man and his ant henchmen as communicating across species, it inadvertently prioritizes human

individuality at the expense of the various ants who have been mind controlled into assisting in human endeavors. If the ants from *Them!* are too alien, and the ants from *Ant-Man* relatively deindividuated despite the film's best intentions, the insect protagonists of *Antz*, *A Bug's Life*, and *Bee Movie* are altogether too familiar in that we recognize in them and identify with their discontented and individualistic response to the conformist societies they exist within.

The most striking aspect of *Ant-Man* reveals a paradox: while some ants are allowed individuation and become affectively significant characters, their genders are not scientifically accurate. Apparently the production crew sought advice from the esteemed myremecologist (ant researcher) I mention briefly in the Introduction, Deborah Gordon, who specializes in researching the collective behavior of ant colonies; when they heard her response, which was that the film should be called *Ant-Woman*, they “never called again.”²³ One of the most blatant aspects of ant colony behavior that *Ant-Man* gets wrong, according to Gordon, is that the flying ant-steed that Scott/Ant-Man uses is actually female, since “[ants] with wings are reproductive, and they have wings only at the time when they're ready to mate.”²⁴ Despite the fact that most of the ants in the film would likely be female, they are nonetheless all referred to as male. Nonetheless, Antony is allowed to be particularized with a name and a congenial personality, and her death in battle is mourned as non-trivial. In what is, if one might excuse the extension of Laura Mulvey's cinematic theory, a very different kind of freezing of the narrative action, we do not linger pruriently on the fragmented body parts of women, but instead savor the drawn out moment of mourning in part because we are allowed to see it so close up, and with such a high degree of particularity. The battle action blurs out and time slows as Scott says goodbye to Antony. This moment, suspended in micro, seems to stretch beyond the physics of time and the

²³ Antonucci “Ant-Man Antics.”

²⁴ Pinchefskey, “A biologist reviews the ants of *Ant-Man*.”

gravity of space, and yet it is imbued with an affectivity which suggests that *this life matters*. We cannot help but wonder if this is because Ant-Man is able to shrink down to ant-size and thus be more on “their level” and thus see them as more particularized, but we, as viewers, are able to do this too.

Insectoid Creatures in the Artworld

Although humans have most likely always been curious about the diminutive creatures which they share the world and their bodies with, it was not until the invention of microscopic technology that we truly were able to scrutinize the nuances that smaller forms hold.²⁵ Robert Hooke’s precise drawings of insects and other creatures in *Micrographia* was only made possible through the use of the microscope.²⁶ Especially with more contemporary advances in photography and film techniques, such as time lapse processes and macroscopic imaging, we are now capable of manipulating time and space in order to reveal the extremities and movements of the insect world on a more meaningful scale than ever before. Claude Nuridsany and Marie Perennou’s French insect documentary *Microcosmos* (1996), which probes into the daily lives of myriad bugs, revolutionized what a nature documentary could do and what it could capture on film. Viewers witness sensuous intercourse between two snails set to an operatic track by Bruno

²⁵ Shapin and Schaffer comment in *Leviathan and the Air-Pump* about the development of new scientific instruments to “enhance perception and to constitute new perceptual objects,” marshaling the microscope, telescope, and air-pump as examples. With entire worlds previously invisible now rendered visible, Shapin and Schaffer continue, “scientific instruments...imposed both a correction and a discipline upon the senses.” (57) While these instruments could potentially enhance the senses, they also put into question the validity of basing scientific knowledge upon the senses. Science and technology are not technical or factual domains defined by internal logic and self-evident matters of fact, but rather, socially constructed. That human perception and sensation are translated through scientific instruments in the laboratory, that the laboratory is a collective space, and that much laboratory work revolves around proliferative inscription based on observation, raises questions about how knowledge is constructed, transmitted, and organized.

²⁶ Neri, “Between Observation and Image: Representations of Insects in Robert Hooke’s *Micrographia*.”



Figure 5.1: In Barbara Norfleet’s “Am I Pretty?,” a menagerie of beetles vie for a gold star in a beauty pageant. Copyright Barbara Norfleet.

Coulais entitled “L’Amour des escargots,” the terror of a pheasant attack from within the anthill, and what it is like to fly like a dragonfly or moth. Many of the scenes shrink down to insect size to allow the viewer to not just enter the world of insects and their brethren, but to identify with their plights as they trundle, flit, or skitter

through life. Moving from film into the

artworld, I explore three different trends in how insects are utilized: as protagonists in their own nonhuman centered myths and stories; as mirrors onto our own cultural tensions; and as decorative elements.

Barbara Norfleet’s simultaneously whimsical and unsettling beetle photograph dioramas put forward a new kind of myth in which beetles feature as the main protagonist, with a few other insects starring in secondary roles, like leaf insects and ants. Her collection, *The Illusion of Orderly Progress* (1998) contends widely with somber issues like power struggles and domestication, and with sillier topics like sports and toys. For example, in “Who is the Fairest of Them All?” a mantid gazes into its own reflection, conjuring Aesop’s vanity fables alongside Levinas’s query as to what constitutes a face. Whereas Norfleet primarily prefers the beetle form and only occasionally utilizes other kinds of insects, Tessa Farmer’s installations incorporate many insect specimens as well as painstakingly crafted wicked fairies whom she pits her hapless insects against in a dark and fantastical struggle between insect and fairy. Tessa Farmer’s miniature tableaus featuring malevolent fairies and hapless insects struggling in battle in *Swarm*

offer a different kind of view onto the insect world. In these squint-worthy tableaux, Farmer scrutinizes the quotidian but no less brutal struggles which occur every day in the animal world through a dark fantasy lens, like a scene from Bosch's *Garden of Earthly Delights*. Instead of menacing invaders or infectious pests, the insects in these scenes are powerless victims whose wings are plucked and filaments ruined.

Catherine Chalmers reveals the insistent linkage between insects and dehumanization in her *American Cockroach* photography series. The photography series is comprised of three sections—"Executions," "Infestations," and "Imposters." It is the "Executions" series that provokes the most visceral reactions from exhibition viewers and rightfully so. She positions the bodies of dead cockroaches to evocatively suggest the powerful images of antebellum lynching practices, Nazi gas chambers, and the electric chair. In Figure 5.1, Chalmers arranges a multitude of cockroaches hung from miniature nooses. Three cockroaches are sharply foregrounded, and each one's antennae and legs splay in different directions, suggesting irreducible particularity. More lynched cockroaches recede into the horizon of the photograph, but their particularity is sacrificed for scale and they become blurry silhouettes. Chalmers's move here may at first seem



Figure 5.2: Catherine Chalmers's "Hanging," which features a multitude of cockroaches hanging in a fashion reminiscent of Southern lynching practices. Copyright Catherine Chalmers.



Figure 5.3: Catherine Chalmers's "Gas Chamber," which offers an unsettling emphasis on a multitude of cockroach legs to recall the horrific genocide of the Holocaust. Copyright Catherine Chalmers.

paradoxical. On the one hand, she condemns violent human oppression by reliance upon the abjectness of the cockroach. Yet at the same time, she instigates an empathetic response through particularizing the cockroach by accentuating the fragility of its various appendages, and heightening the photographs pervasive sense of vulnerability. In Figure 5.2, Chalmers again depends upon the cockroach's multiplicity of legs to evoke the mass genocide of the Holocaust in Nazi concentration camps. Chalmers's particular choice of the cockroach relies upon speciesism—cockroaches are envisioned as pests who must be eradicated, and whose lives jeopardize human lives through contagion, infestation, and disease. The tableaux which Chalmers puts together in this part of the series raises critical questions not just about how speciesist logic works to appeal to our senses, but visually signals the semiotics of our understandings of what it means to be a human animal separate from, but ostensibly superior to, nonhuman animals. Chalmers's manipulation of not just species, but size and silhouette unsettles the viewer by denouncing violent execution of human beings while simultaneously creating empathy with a particularized cockroach. While Chalmers's images may be unsettling, they also perch between the beautiful and disgusting, a point which Robert Hirsch has made.

In what look like stills from a diminutive horror film, her images transform roaches into surreal projections of human manifestations, giving them a mythology that evokes both curiosity and revulsion. By pushing against traditional symbolic connotations, Chalmers challenges us to reassess how we differentiate between what we consider to be normal and disturbing in nature.²⁷

Nairobi-born Brooklyn-based artist Wangechi Mutu, whose multimedia and collage installations employ insects towards creating hybrid woman-animal-machine figures, has been called firmly Afrofuturist in her approach.²⁸ As early as her 2010 *Moth Girls* installation, Mutu

²⁷ Hirsch, *Light and Lens*, 61.

²⁸ Kaitano, "The Afrofuturism of Wangechi Mutu."

was concerned with the enmeshment of black embodiment and animalization to uncanny visions of a reimagined future. The installation sports 246 half-human, half-moth beings, which have been pinned in orderly lines around the room like the specimens of a feverish collector. Though the uniformity with which they have been arranged at first suggests that each figurine is identical, they all have different leather wings and feathered antennae, and the human-shaped legs which peek out from underneath the wings splay out in wildly diverse directions. These hybrid creatures recall “taxonomy, along with the volatile notion of classification and hierarchization of species and, by extension, peoples and races,” according to the Museum of Contemporary Art in Montreal.²⁹ The catalyst for Mutu’s *Moth Girls* installation belies another nearness between Mutu and Butler aside from their shared Afrofuturist genealogies: Butler’s fear of botflies while pursuing research in the Amazon for her trilogy, and her startled response at illustrations of particularly disgusting-looking invertebrates in textbooks, inspired her to write through her disgust. By channeling her frustration at a moth infestation in her apartment, Mutu



Figure 5.4: Wangechi Mutu, *Moth Girls*, 2010. Detail. Musée d’art contemporain de Montréal Collection. Copyright: Gladstone Gallery, New York



Figure 5.5: Wangechi Mutu, *Moth Girls*, 2010. Detail. Musée d’art contemporain de Montréal Collection. Copyright: Gladstone Gallery, New York

creates a somber and evocative proliferation of similar yet idiosyncratic moth-woman hybrids.³⁰

²⁹ Bélisle and Mutu, “The Anatomy of an Exquisite Horror,” 62.

³⁰ Yablonsky, “Moths and Mercenaries.”

Like Chalmers's *American Cockroach*, Mutu strikes an uneasy balance between the beautiful and the grotesque, the abject and the sacred. Cockroach parts in Chalmers's photographs are meant to be a haunting metonymic indictment of human violence, whereas Mutu uses collage and cut-up techniques to juxtapose gendered and raced embodiment against the fleshly animal world and the mechanization of machines to comment on fragmented identity, feminine vulnerability, and African diaspora.

In contrast to artists like Chalmers and Farmer, who use insects as props for querying human and nonhuman violence, and Mutu, who finds in insects a powerful aesthetic category for a mythology of powerful woman-animal-machine hybrids, artists like Christopher Marley and Jennifer Angus use the material bodies of insects to create intricate and often geometric designs meant to mesmerize the eye. Christopher Marley, for example, utilizes primarily metallic beetles whose carapaces are frequently jewel-like, and his arrangement of their bodies into pleasing



Figure 5.6: Photo from Jennifer Angus's artist website of her exhibit installation at Renwick Gallery, Smithsonian Museum of American Art, Washington D.C. Copyright Jennifer Angus.

patterns prioritizes an interpretation of insects as what he calls “design elements.”³¹ He notes that “[no] organisms mirror [his] own artistic aspirations like insects—so functional, so minimalist, so exquisitely adorned” and that they are, furthermore, “the

³¹ Marley, *Pheromone Gallery*.

quintessential embodiment of sleek, minimalist, architectural design.”³² While Marley prefers to utilize the whole insect to arrange his geometric patterns, Jennifer Angus favors insect parts to mimic wallpaper and other interior designs. Her most recent installation uses and reuses beetle wings to decorate the walls of an entire home, and she hopes that her art will raise awareness of the precarious stability of many insect species due to deforestation and other destructive human practices.³³

Insects matter in their many material effects on the world: they tell magnified tales of ecology and epidemic, of invasion and infestation. Consider just a few events in which insects served as starring protagonists on American soil in the past several years alone: the mosquito’s role as virus transmitter in the West Nile epidemics of 1999-2003³⁴ and current anxieties about Zika virus spreading to the United States³⁵; the millennial arrival of the Argentine ant on American soil, forming a genetically linked global megacolony working in cooperation on an unprecedented scale; the sudden, swift, and mysterious decimation of the American honeybee population, a phenomenon dubbed “bee colony collapse disorder” in 2006³⁶; the realization of a wireless cyborg beetle system funded through research by DARPA in 2009, which raised questions about what form military surveillance and indirect control will take next³⁷; the New

³² Marley, *Pheromone Gallery*.

³³ Angus notes on her website that “[while] collecting insects is ecologically sound if done in a thoughtful manner that unfortunately is not always the case,” and that she hopes that “[her] exhibition will get [people] excited and perhaps... motivated to get involved with one of the many of the rain forest preservation projects out there.” She also thinks it important to add that she does not dispose of the insect parts that she arranges in her installations, but that she reuses them again and again: “After an exhibition I pin them on to foam boards and put them into boxes until the next exhibition.”

³⁴ Hamer et. al, “Rapid Amplification of West Nile Virus.”

³⁵ Cohen, “Yes, Zika will soon spread in the United States. But it won’t be a disaster.”

³⁶ *Vanishing of the Bees*.

³⁷ Michel Maharbiz and his colleagues meld the natural abilities of the beetle with the machine in an extension of their previous work on implantation of electronic components in beetle pupae. By implanting electrodes in beetles and then controlling their movement via wireless radio receive, they send electrical

York bed bug epidemic in the summer of 2010³⁸; and the Chagas disease outbreak in late fall of 2015 brought on by an influx of triatomine bugs (more colloquially known as “kissing bugs” because of their penchant for biting around the mouth) who carry the *Trypanosoma cruzi* parasite³⁹. Recent experiments into the affectivity of insects—most specifically honeybees and *Drosophila* flies—have suggested that insects have the capacity to feel on a scale not taken into account before now.⁴⁰ The movements of insect populations and their material effects, but especially the ways in which we talk about these movements and effects, are unique indicators of the cultural contours, feelings, and panics of an era.

signals via the electrodes to the insect, which then commands the insect to take off, turn right or left, or hover mid-flight. See M.M. Maharbiz and H. Sato, “Cyborg Beetles: Tiny flying robots that are part machine and part insect may one day save lives in wars and disasters,” Sato and Maharbiz. “Recent Developments in the Remote Radio Control of Insect Flight,” and Sato et al.’s “Remote radio control of insect flight.”

³⁸ Pilkington, “How Bedbugs Invaded New York.” In Ed Pilkington’s *Guardian* article, accompanied by a photomontage of a bedbug the size of a skyscraper pillaging the city, he warns that though “[the] monsters in question may lack the muscle structure of King Kong or the fire-breathing capacity of The Beast,” they nonetheless are “on the march, steadily extending [their] reign of terror across the five boroughs and onwards to cities across America.” See Brooke Borel’s *Infested: How the Bed Bug Infiltrated Our Bedrooms and Took Over the World* and Dawn Biehler’s *Pests in the City: Flies, Bedbugs, Cockroaches, and Rats*.

³⁹ Pesce, “Deadly kissing bugs reported in more than half of U.S., spreading Chagas disease.”

⁴⁰ Gibson et. al.’s “Behavioral responses to a repetitive visual threat stimulus express a persistent state of defensive arousal in *Drosophila*,” and Bateson “Agitated honeybees exhibit pessimistic cognitive bias.”

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