



## Eco-Dystopia: Reproduction and Destruction in Margaret Atwood's *Oryx and Crake*

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### Abstract:

*This essay argues that Margaret Atwood's Oryx and Crake participates in a vibrant debate among scholars of science, animal, and feminist studies. Though traditional readings of Oryx and Crake emphasize the novel's critique of capitalist science, this essay demonstrates the ways in which the novel criticizes ecotopianism. By critiquing both capitalist science and ecotopianism, Oryx and Crake highlights the complexity of knowledge production and cautions the reader against sweeping plans for the elimination of suffering, regardless of whether those plans are driven by economics, science, or environmentalism.*

Central to most socialist feminist critiques of the human world is a critique of the hierarchies that produce and reproduce unjust distributions of wealth and power. As a socialist feminist, I might, for instance, argue against the systematic subordination of a group of people whose work is undervalued by a system that uses hierarchical reasoning to perpetuate the power and privilege of a few at the top of a hierarchy at the expense of the many who are kept at the bottom. In arguing against the inherent injustice of such a system, I can ground my reasoning in a belief in human dignity, in a belief that all human beings are inherently deserving of loving, ethical treatment and that the quality of the treatment they receive should not be based on an unjustifiable hierarchy. In basing my argument on these kinds of premises, however, I may buy into another kind of hierarchical reasoning—that which views humankind at the top of a global hierarchy in which subordinated species are exploited because they do not share in a dignity prefigured as distinctly human. In this case, my reasoning would align with the many who advocate human exceptionalism.

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Ecocritics, ecofeminists, environmentalists, animal rights activists, and many animal studies scholars have challenged this form of hierarchical thinking, calling instead for a complete reevaluation of global hierarchies that would undermine the assumption that human beings are somehow more deserving of love and respect than animals. Jacques Derrida, for instance, examines the ways in which a long history of Western philosophy has constructed “man” against “animal”; he reminds us that the animal is an other who looks and responds, who possesses “an insistent gaze,” “a benevolent or pitiless gaze, surprised or cognizant” (372). Donna Haraway pushes further, forcefully challenging human exceptionalism and arguing that human beings are one of “the myriad of entangled, coshaping species of the earth” (5). She imagines instead a world of “becoming with” in which being—that is, being human—is a process whereby humans “become with” many other companion species (4). Working alongside Haraway, geographer Nigel Clark suggests that we can understand animal-human interaction in terms of Rosalyn Diprose’s discussion of corporeal generosity. If we can understand the mutuality inherent in our bodily relationships with animals, then we can begin to treat animals with the respect and gratitude that we offer human beings whose generosity we (ideally) already recognize (Clark 67).

Though the degree to which these scholars and activists would eliminate human-over-animal or human-over-nature hierarchies is still under debate, many envision a world in which the utter collapse of hierarchical thinking would produce mutual love and respect among humans, animals, and nature more generally. Such thinkers share a utopian approach—more specifically, they share what has been called an ecological utopianism or ecotopianism in which society is not defined by a hoarding of resources and domination but by the sharing of resources and often a “natural” harmony among species. In his analysis of a number of ecotopian thinkers, scholar Marius de Geus concludes the following: “Ecological utopian thinkers [are] opponents of abundant production and consumption [. . .] In this unpretentious approach [. . .] individual and social happiness is found in a conscious relinquishment of material pleasures and the restraining of human wants” (“Ecotopia, Sustainability, and Vision” 189). David Landis Barnhill builds on this understanding of ecotopia, showing that the ecotopian impulse might take a number of forms, including those that emphasize “sufficiency, high quality of life, egalitarianism, communitarianism, libertarianism, radical democracy, decentralization, appropriate technology, an affirmation that the natural world has intrinsic value, a sense of identification with nature, and a critique of the degradation of ecological systems” (126). In short, ecotopia is “an ecosocial impulse toward radically better relationships among people and with the earth,” and for many, this radical reorientation requires the collapsing of human-over-nature hierarchy (Barnhill 131). Lucy Sargisson suggests that these “green utopias” offer “transgressive” possibilities for environmentalist re-imaginings of the domination that currently plagues “Self-Other relations” (141). The literary works of someone like Ursula Le Guin, for instance, present worlds in which man-over-woman and human-over-nature hierarchies can be re-imagined, worlds that question “the idea of impermeable boundaries between human and animal” and that allow the reader to imagine a life defined not by domination and suffering but by love (Armbruster 109). For Sargisson, the utopian impulse intrinsic to environmentalist philosophies opens up a space “in which transformative imaginings can occur and in which the process of change may begin” (156). Ecotopianism, from this perspective, is a vehicle for positive social change.

In this article, I situate Margaret Atwood’s *Oryx and Crake* against this backdrop of ecotopian imaginings. Whereas many novels depict the utopian possibilities inherent in the collapsing of human-over-nature hierarchy, *Oryx and Crake* offers a dystopian picture of this same collapse, presenting

instead the negative consequences of enacting one ecotopian vision. As I explain below, at the heart of *Oryx and Crake* is a tension between capitalist science's tendency to minimize human/animal differences and its simultaneous insistence upon maintaining human exceptionalism. By controlling and commodifying the production and reproduction of both human beings and non-human animals, the capitalist scientists of *Oryx and Crake* diminish the possibility of human exceptionalism, reducing both non-human animals and humans to controllable commodities. At the same time that corporate science collapses human-over-animal hierarchy, however, it also strives to reinforce that hierarchy by drawing a clear distinction between a human world within isolated scientific Compounds and a savage world outside Compound walls populated by non-human and dehumanized Others. Although embedded in this inconsistent world of capitalist science, a visionary Crake sees beyond the limited views of those scientists who simultaneously collapse and reinforce human-over-animal hierarchy. He seeks instead to move beyond human-dominated hierarchy and its associated suffering; to achieve this goal, he creates the Crakers, thus enacting his ecotopian dream. Like the ecotopian thinkers that de Gues identifies, Crake seeks to produce social happiness by restraining human desire—unlike these thinkers, his status as geneticist allows him to restrain those desires biologically.

As I will show, Crake locates the source of human suffering in hierarchical struggles for domination that exist largely because of “faulty” human reproductive habits. By re-engineering human beings such that their reproductive habits mimic those of animals, Crake creates a group of human-animals who defy animal/human, nature/culture binary oppositions—who defy, in other words, what Bruno Latour has called the “Great Divide” (211). However, in order to fulfill his ecotopian vision—one in which the human reproductive habits responsible for psychological suffering and human-driven power struggles are eliminated and in which human-over-nature hierarchies are collapsed—Crake must first destroy humanity. Unfortunately for the ecotopian Crake, by the end of the novel the Crakers have thwarted his vision by demonstrating their potential for hierarchical thinking. From this perspective, we can read *Oryx and Crake* as a response to ecological utopias, one that troubles the notion that ecotopianism leads toward positive social change and asks whether the elimination of human-over-nature hierarchy is desirable or even possible. Further, by understanding the ways in which Atwood critiques not only capitalist science but utopian environmentalism, we can see how her work highlights the complexity of knowledge production while cautioning the reader against sweeping plans for the elimination of suffering—regardless of whether we call those plans capitalism, science, or environmentalism.

Although Atwood, with her depiction of the God's Gardeners and descriptions of decaying landscapes, uses *Oryx and Crake* to explicitly evoke the environmentalist movement, scholars of this work tend to focus on the novel's indictment of science and capitalism rather than its critique of environmentalism or ecotopianism. Giuseppina Botta argues, for instance, that *Oryx and Crake* “is a reflection on what to do with science's discoveries, how to be cautious with them, when to stop,” while Stephen Dunning reads the novel as a work that condemns technoscience's exploitation of “qualitative human concerns” (89). Grayson Cooke takes a somewhat broader view, finding in *Oryx and Crake* not only a critique of the abuses of biotechnology, but of “technics” more generally, including both scientific and linguistic tools in his definition of technics. For Cooke, in addition to “turn[ing] considerable satirical scrutiny on biotechnology and technoscience,” Atwood “exposes a deeper seam at which the material

and the semiotic meet: the biotechno-logical and capitalistic manipulation of nature, technology, and the human" (113).

All of these readings are related, no doubt, to Danette DiMarco's, whose early article took up Atwood's depiction of *homo faber*, the human being whose instrumental approach to life results in his abuse of others to achieve his desired ends. Crake, "the quintessential *homo faber*," produces technologies for profit rather than for personal fulfillment or for the alleviation of tedious forms of labour (DiMarco 170). By seeing his creations as purely instrumental, he can easily see the destruction of humanity as a necessary means to his desired ends. DiMarco's discussion of Crake as *homo faber* is prescient, but it may lead us to overlook the ways in which Crake is not only the maker of material things but of dreams. Indeed, readings like these account for Crake's association with science and capitalism and the novel's consequent critique of both. They do not account, however, for Crake's affinities with environmental activists and the critique that the novel offers on the basis of those affinities.

Among scholars who situate *Oryx and Crake* within the context of environmentalism is Hannes Bergthaller, who offers an incisive discussion of the novel's embrace and critique of that movement. Bergthaller argues that with *Oryx and Crake* Atwood positions sustainability as a central problem for humanity. For Bergthaller, *Oryx and Crake* presents sustainability as an ideal that is to be achieved not through a romantic environmentalist embrace of "the natural," but through a tempering of that which comes naturally to human beings—achieving sustainability, in short, means "taming the human animal" (737). Bergthaller suggests that Crake and Jimmy present two options for achieving such a goal: a science-based approach that is over-determined by biological understandings of human behavior and a humanities-based approach that fails to acknowledge the biological aspects of being human. In *Oryx and Crake*, neither of these approaches can produce sustainability.

Though Bergthaller's reading does much to account for *Oryx and Crake's* relationship to environmentalism, his interpretation can be enhanced by a more nuanced understanding of the role that Crake plays in the novel. Like many readers of *Oryx and Crake*, Bergthaller is tempted to reduce Crake to the role he plays as a representative of a capitalist scientific world. To fully understand the critique the novel offers, however, we must understand Crake not only as a capitalist scientist but as a dreamer, a creator, a utopian, and—by virtue of his desire to put an end to human-over-nature hierarchy—an environmentalist. To further explicate Crake's status as environmentalist and the role that that status plays in the novel, I discuss below the conflicted status of human-over-nature hierarchy in Crake's world and the utopianism that dominates his response to that hierarchy.

From the first page of *Oryx and Crake*, Atwood makes clear that an imagined human/animal or culture/nature divide will be at-issue in this novel. In the first paragraphs, the reader finds Snowman, formerly Jimmy, living in a world in which these binary divisions have been blurred: "Snowman wakes before dawn. He lies unmoving, listening to the tide coming in, wave after wave sloshing over the various barricades, wish-wash, wish-wash, the rhythm of heartbeat" (Atwood 3). Here, the products of culture—"various barricades"—are literally mingled with that which we normally construct as nature—ocean waves. The sound of nature commingling with culture is then compared to a symbol of both—the heartbeat—an image associated both with a biological organ and with cultural constructions of love and vitality. However, the image that conflates nature and culture, conveying the organic commingling of both, is immediately followed by a description that conveys a somewhat more antagonistic relationship

between the two: "On the eastern horizon there's a grayish haze, lit now with a rosy, deadly glow. Strange how that colour still seems tender. The offshore towers stand out in dark silhouette against it, rising improbably out of the pink and pale blue of the lagoon. The shrieks of the birds that nest out there and the distant ocean grinding against the ersatz reefs of rusted car parts and jumbled bricks and assorted rubble sound almost like holiday traffic" (3). What was first depicted as a peaceful commingling of nature and culture combined in the symbolism of the heartbeat becomes a starker juxtaposition, one which connotes a potential separation of that which is human-made and that which humans define as "natural." Human-made towers "stand out" against nature's horizon, while the waves that once produced "the rhythm of heartbeat" now "grind against" an artificial reef composed of human-made objects. Similarly, Atwood replaces the peaceful "wish-wash" sound of the heartbeat with "shrieks" of birds. While the opening paragraph conveys a potentially utopian vision of culture and nature coming together, the following paragraph immediately calls that vision into question.

Without a clear distinction between nature and culture—without human beings present to interpret the non-human—the world becomes a rather uncertain place. The colour of the horizon only "seems tender," as it would have when human beings were around to construct it as such. Towers rise "improbably" and sounds become "almost like"—but not quite like—"holiday traffic." Even the guiding principle of time—itsself made meaningful by human perception—is gone, and Snowman now lives in "zero hour."

Snowman, or more specifically the Abominable Snowman, lives in a world where culture/nature distinctions are unclear. Even his chosen name conveys this lack of clarity. He is both material and natural—a man named after an ape-like creature who looks after the Crakers—and an abstract product of culture—a legend, a creature that exists only in the imagination of human beings. The confusion of a world beyond time, beyond human-constructed meaning, arises, as I will show, as a result of Crake's ecotopian vision, one that desires the complete collapse of hierarchy. This vision, in turn, arose from the capitalist-scientific practices that used the commodification and control of reproduction to minimize distinctions between humans and animals at the same time that it insisted upon those distinctions.

In one regard, *Oryx and Crake* presents a world where hierarchical distinctions have been erased by technologies that present all forms of life—human or otherwise—as equally viable entertainment options. Jimmy and Crake trade famous works of art for genocides to pass the time, browse the web to view an execution, or watch a competition in which the goal is to eat live animals as quickly as possible (80-83). Human and non-human animal lives are bundled into a single category—all lives are objects whose purpose is to entertain.

This leveling of hierarchical distinctions between animals and humans is even more evident within the scientific world, where all life forms are objects for study and experimentation. Indeed, the biotechnologies of this world are so advanced—and yet not so distinct from the technologies of today—that the scientists of *Oryx and Crake* have little trouble controlling almost completely the genetic makeup of all animals, including humans.<sup>1</sup> Human and non-human animal reproduction can be planned, modified, and improved. Just as Atwood's scientists can manipulate genetic makeup to produce pigeons, wolvogs, rakunks, and headless chickens, so can they create a model human baby—one that Jimmy's stepmother might purchase from "Infantade, Foetility, [or] Perfectababe" (250). Similarly, Compound scientists can quite literally combine human and non-human bodies: they develop creatures like pigeons, who possess the neocortex tissues of human beings, at the same time that they create

technologies that allow human beings to take on the organs of pigeons (56). In their daily practices, then, the scientists of *Oryx and Crake* diminish animal/human distinctions and the possibility of human exceptionalism.

The corporate practices that drive the biotechnologies of *Oryx and Crake* also challenge the notion that human beings hold a special position above non-human animals. Those in power not only *control* the production and reproduction of human babies, human flesh, and pigeons, they also *sell* the products of their labour. The pigeon must be closely guarded, as its “finely honed genetic material” must be kept a secret in order to maintain its value (26). Likewise, a chicken with the right number of fleshy outgrowths is quite the valuable commodity as it can undersell another meat-dealing competitor (202-203). Just like non-human animal bodies, human bodies can be manipulated according to market demands—a “for-harvest child” might be kept in an “illegal baby orchard” just as easily as Oryx can be sold to pornographers (23). In the Pleeblands, people travel from all over the world to purchase various human characteristics: “Gender, sexual orientation, height, colour of skin and eyes—it’s all on order, it can all be done or redone” (289). Human life, in this world, is just as profitable as that of a pigeon.

In the capitalist scientific world of *Oryx and Crake*, then, human and non-human animal bodies enter into the same category—that which can be controlled and commodified. All creatures—human or animal, suffering or experiencing immense pleasure, dead or alive—might usefully entertain two young boys with nothing to do during an afternoon. All of life is for sale, and boundaries among species are more permeable than ever. Corporate science, in short, minimizes the perceived distinctions between humans and non-human animals that might support human exceptionalism and justify human-over-nature hierarchy.

The collapsing of human-over-nature hierarchy within Compound culture, however, is inconsistent at best. At the same time that the corporate-scientists of *Oryx and Crake* place human and non-human animal bodies into the same category—that which can be manipulated and sold—they also take great pains to reinforce human exceptionalism and hierarchies. Indeed, these same scientists and other elites live within Compounds that are elaborately policed such that no pleeb may enter. Jimmy’s father is explicit on this point:

Long ago, in the days of knights and dragons, the kings and dukes had lived in castles, with high walls and drawbridges and slots on the ramparts so you could pour hot pitch on your enemies, said Jimmy’s father, and the Compounds were the same idea. Castles were for keeping you and your buddies nice and safe inside, and for keeping everybody else outside. (28)

Compound culture constructs the Pleeblands as an “unpredictable” place where disease and “criminal activity” run rampant (27, 196). The “top people” who live in Compounds think of pleeb as “mental deficient” whose only worth lies in their purchasing power, as “no life of the mind” exists in the Pleeblands (26, 288, 196). And the scientists of this novel willingly experiment on human beings as long as they come from a population at the bottom of their constructed hierarchy—“from the poorer countries [. . .] sex clinics, of course [. . .] Whorehouses. Prisons” (296). These experiments often result in horrific results—skin “peeling in ragged strips,” “split dicks,” and body-sized genital warts—but as long as the test subjects come from “the ranks of the desperate,” those in the Compound continue their work (55, 295-6). In short, when faced with the reality that both humans and non-human animals belong to the same category of biologically controllable commodity, the Compound scientists continue to insist upon human exceptionalism.<sup>2</sup> Essentially, they view pleeb as animal-like “mental deficient”—Others

who are undeserving of any special ethical treatment. Hegemonic Compound culture, in other words, preserves human exceptionalism by reserving it for a certain class of humans—those Compound-dwelling humans who demonstrate an interest in the “life of the mind.”

To sum up thus far, the tension between maintaining hierarchy and seeing all beings as equally controllable commodities arises from the scientific and capitalist context that dominates Compound life. In their daily practices, Compound scientists must view human and non-human animal lives as equivalent—objects of study—at the same time that they must view themselves as superior—the knowing subjects who have power over a knowable object. The capitalist context of the novel works similarly. Because in the world of the Compounds all forms of life are treated as commodities, distinctions between humans and non-human animals are minimized—everything, ultimately, has a price. At the same time, however, the capitalist system of the Compounds supports the gross accumulation of wealth and a growing gap between the haves—Compound elites—and the have-nots—the plebs. This uneven distribution of wealth, in turn, lends itself toward hierarchy. Capitalist science, in other words, diminishes hierarchical distinctions at the same time that it supports the power and privilege of the few at the top of a hierarchical system.

Embedded in Compound culture is Crake, a visionary who sees beyond the continued belief in human exceptionalism in a world where all life forms are controllable commodities. Whereas the scientists around him embrace hierarchy—looking down on plebs while embracing their own elite status—at the same time that they refuse it—viewing both human and non-human animals as controllable commodities—Crake’s vision is much more consistent:

Monkey brains, had been Crake’s opinion. Monkey paws, monkey curiosity, the desire to take apart, turn inside out, smell, fondle, measure, improve, trash, discard—all hooked up to monkey brains, an advanced model of monkey brains, but monkey brains all the same. Crake had no very high opinion of human ingenuity, despite the large amount of it he himself possessed. (99)

Atwood makes clear here that Crake rejects the sort of human exceptionalism that might offer humans a special status and afford them privileged ethical treatment. Crake embraces instead a biological determinism that categorizes all animals, humans included, as similar kinds of life forms—life forms which can be manipulated and perfected. He even rejects the hierarchical distinctions that most of the Compound elites draw among themselves, relying on the neurotypical Jimmy as the one person whom he can trust. His embrace of a world beyond human exceptionalism is so radical, indeed, that he does not even carve out a space for himself as an exceptional creature: he even goes so far as to arrange his own death to ensure the creation of a world without human-constructed hierarchy, a world without human beings.

His rejections of human-dominated hierarchy, however, do not result from apathy, as Crake certainly has his passions. Indeed, at one point Crake demonstrates a passion for ecological wellbeing when he condemns the Happicuppa coffee corporation:

“Those guys should be whacked,” said Crake.

“Which ones? The Peasants? Or the guys killing them?”

“The latter, not because of the dead peasants, there’s always been dead peasants. But they’re nuking the cloud forests to plant this stuff.”

“The peasants would do that too if they had half a chance,” said Jimmy.

“Sure, but they don’t have half a chance.”

“You’re taking sides?”

“There aren’t any sides, as such.” (179)

In this passage, Crake demonstrates not only his concern with the preservation of an ecosystem but with his willingness to link that concern with a belief in a world outside of human-constructed hierarchy. From this point of view, there are no “sides” among human beings, no winners or losers who ought to hold a higher or lower position within a hierarchical system. Rather, for Crake goodness is constituted by the preservation of an important ecosystem while hierarchical struggles among human beings are irrelevant. Crake’s concern over the cloud forests links him to the environmentalist movement (and its terrorist component) that lurks beneath the action of the plot and becomes a central concern in *The Year of the Flood*.<sup>3</sup>

Atwood strengthens this link by suggesting a mysterious affinity between Crake and Jimmy’s mother, who is suspected of being an active member of the God’s Gardeners. Although Jimmy cannot quite understand why, his mother considers Crake “intellectually honourable” while Crake considers Jimmy’s mother to be a “nice lady,” despite Jimmy’s suggestion that she was anything but nice (69, 286). Given Crake’s concern with the cloud forests, his connection to Jimmy’s mother, and his rejection of human-constructed hierarchy, we can read Crake as an environmentalist—and a rather utopian one at that. Atwood hardly depicts Crake’s environmentalism sympathetically, however. Even in the above quote, Crake’s environmentalist concern for the preservation of the cloud forests is coupled with a lack of concern with the wellbeing of human beings—the peasants who have lost their jobs and are being killed by the Hapicuppa corporation. Such a brief critique of Crake, however, is only a hint at the much broader critique that Atwood makes of ecotopianism based on Crake’s vision and the havoc it wreaks.

Although partly environmentalist, this vision is not based merely on a desire to preserve the cloud forests and to stop the “environmental degradation” that concerns Crake; rather, Crake seeks to improve quality of life across the board—to eliminate psychological suffering altogether, to build a world where “there’s no more jealousy, no more wife-butcherers, no more husband-poisoners [. . .] No pushing and shoving,” a world where “hierarchy could not exist” (293, 169, 305). To enact this utopian vision, Crake must eliminate the struggles for domination that cause psychological suffering and the urges that drive those struggles—in other words, he must entirely alter the way human beings live and act.

Like the ecotopian thinkers that de Geus identifies, Crake determines that the solution to human suffering requires “the restraining of human wants” (*Ecological Utopias* 21). Specifically, for Crake, altering human behavior so as to eliminate domination and psychological suffering means altering human reproductive habits. Indeed, throughout the novel Crake cites human reproductive behavior as a problem that must be overcome, “a deeply imperfect solution to the problem of intergenerational genetic transfer” (193). According to Crake, partial monogamy among human beings is responsible not only for individual psychological suffering, but for violence and domination:

Maybe Crake was right, thinks Snowman. Under the old dispensation, sexual competition has been relentless and cruel: for every pair of happy lovers there was a dejected onlooker, the one excluded [. . .] That had been the milder form: the single man at the window, drinking himself into oblivion to the mournful strains of the tango. But such things could escalate into violence. Extreme emotions could be lethal. *If I can’t have you nobody will*, and so forth. Death could set in. (165-66)



Similarly, Crake laments the “needless despair” caused by “a series of biological mismatches, a misalignment of the hormones and pheromones” (166). Given Jimmy’s successful seductions, Crake’s largely sparse love life, and the ambiguous relations among Jimmy, Crake, and Oryx, Crake is no doubt particularly sensitive to these “sexual torments” (Atwood 166). In their case, such sexual torments do ultimately lead to violence. To eliminate this source of suffering, Crake proposes an alternative model for human reproduction that would avoid the sexual “frustration and blocked testosterone that led to jealousy and violence” (294). Crake posits that humans, like the “indiscriminately promiscuous” bonobo chimpanzee, would have a lower “intraspecific aggression factor” if only their reproductive habits were improved (293-94).

But jealousy is not the only kind of suffering that Crake links to human reproduction: he also seeks to decrease the suffering tied to competition for resources caused by overpopulation, a suffering that harms not only human beings, but the entire ecosystem. As Crake explains, overpopulation threatens both the haves and the have-nots:

“As a species we’re in deep trouble, worse than anyone’s saying [. . .] Demand for resources has exceeded supply for decades in marginal geopolitical areas, hence the famines and droughts; but very soon, demand is going to exceed supply for everyone.” (295)

Crake links this overpopulation to human beings’ unwillingness to limit their reproduction:

Homo sapiens doesn’t seem able to cut himself off at the supply end. He’s one of the few species that doesn’t limit reproduction in the face of dwindling resources. In other words – and put to a point, of course – the less we eat, the more we fuck. (120)

According to Crake, because human beings fail to limit reproduction in the face of limited resources, overpopulation and the struggle for resources that accompany it have become increasingly pressing problems. Furthermore, in ruminating on the problems associated with reproduction, Crake even goes so far as to link human reproductive habits both to war and religion: he suggests that war is tantamount to “misplaced sexual energy” rather than the oft cited “economic, racial, and religious causes” and that “crank religions” are “based on misery, indefinitely deferred gratification, and sexual frustration” (293, 295). In short, if Crake seeks to end suffering as he understands it and to build a world beyond human-constructed hierarchy, he must change human reproductive behavior.

To address this concern, a visionary Crake creates the BlyssPlus Pill which “would put a stop to haphazard reproduction” and designs the Crakers to “replace [that reproduction] with a superior method”; in so doing, he creates creatures whose very existence makes clear distinctions between humans and non-human animals untenable—beings who therefore challenge human exceptionalism and the role it plays in justifying human-over-nature hierarchy (304). The Crakers are, quite literally, creatures whose bodies challenge human constructions of “the animal” and “the human.” Like cats, the Crakers purr; like the rabbits of this world, they glow with the green from a jellyfish gene; like “the canids and the mustelids,” they mark their territory; and like various hares and rabbits, the Crakers eat leaves and grass (156, 102, 154, 158).

But the most elaborately described way in which the Crakers challenge clear distinctions between “the human” and “the animal” is in their mating rituals. In his desire to preclude the violence and suffering caused by *homo sapiens sapiens*’ imperfect monogamy, Crake models the Crakers after a variety of animals whose reproductive habits resist jealousy. Rather than living in a state of perpetual fertility, female Crakers come into heat once every three years, a condition made obvious by baboon

and octopus genes that make the fertile female's buttocks and abdomen turn blue. When a female Craker is fertile, male Crakers—their penises a matching blue—enact a courtship ritual that Crake draws from a variety of other species, including penguins, silverfish, songbirds, and crabs. A female chooses four mates, “the sexual ardour of the unsuccessful candidates dissipates immediately,” and five Crakers mate until conception (165). As Snowman explains, Crake's modification of human reproduction does indeed reduce violence, as there are “no hard feelings” and “no more rape” (165). As he puts it, “sex is no longer a mysterious rite, viewed with ambivalence or downright loathing, conducted in the dark and inspiring suicides and murders. Now it's more like an athletic demonstration, a free-spirited romp” (165). These creatures, then, resist the jealousies and power struggles that Crake locates in human reproduction at the same time that their bodies challenge the human exceptionalism that helps justify human-over-nature hierarchy.

The Crakers are designed, in short, to solve the inconsistent approaches to hierarchy that are deeply embedded in the capitalist-scientific world that surrounds Crake. While the capitalist scientists around him view all life as reducible to controllable commodity at the same time that they insist upon their own privileged positions, Crake seeks to create a world where human-over-nature hierarchy no longer exists—where the struggles associated with overpopulation and unrequited love are gone and where human/animal distinctions are utterly untenable. In short, Crake seeks to enact an ecotopian vision in which human desire has been restrained and human domination of nature has been eliminated. Indeed, the Crakers—with their avoidance of hierarchical thinking and disgust at the thought of killing other creatures—represent for Crake the possibility of remaking the world in the name of harmony among all creatures, human and non-human animals alike. Crake, the ultimate scientist, is also the ultimate ecotopian thinker—he has used his ability to manipulate human genetics to restrain human desire and produce what he believes will be a sustainable planet free of human-constructed hierarchy and psychological suffering.

But rather than embracing Crake's vision and following suit with thinkers like Ursula LeGuin, Peter Kropotkin, or Murray Bookchin, Atwood condemns the ecological utopianism inherent in that vision. Indeed, it would be difficult to find a reader of *Oryx and Crake* who would argue that Crake's decision to destroy humanity in order to enact his ecotopian vision was the right thing to do. In attempting to end the suffering brought about by human-constructed hierarchies and faulty reproductive habits, Crake endeavors to work toward the greater good. But with his instrumentalist worldview, Crake's working toward the greater good comes at the expense of the continued existence of humanity.

At one point in the novel, Crake explains to Jimmy that “*Homo sapiens sapiens* was not hard-wired to individuate other people in numbers above two hundred, the size of the primal tribe” (343). If this is true, then Crake's utter destruction of *Homo sapiens sapiens* may be difficult for the reader to grasp. Atwood, however, ensures that the reader views the enactment of Crake's utopian vision as horrific by presenting the destruction it brings on both micro and macro levels. Not only does Crake destroy humanity and leave Jimmy watching in horror as entire cities are wiped out, but he kills Oryx directly. Doing so ensures for Crake that his plan will be executed, as it eliminates the possibility that Oryx and Jimmy would produce human offspring. Additionally, because Crake kills Oryx, Atwood ensures that the reader recognizes his utopianism as utterly twisted by individualizing the violence he enacts and therefore making it comprehensible. With the condemnation of Crake's vision for a better future, Atwood condemns not only the biological determinism and capitalist commodification of life that

allowed Crake to believe in the complete control of the Crakers, but the utopian vision that allowed Crake to believe that he could single-handedly build a sustainable planet free of hierarchy.

Furthermore, not only does Atwood use *Oryx and Crake* to condemn the negative ethical ramifications of the enactment of Crake's ecotopian vision, but she also critiques the practicality of acting on such a vision. Though Crake believes that he can build a world beyond hierarchy, the Crakers' habits and beliefs call the possibility of enacting that vision into question. By the end of the novel, the Crakers have adopted religion, claimed roles according to gender, and demonstrated an inclination toward leadership. Additionally, their seemingly peaceful interactions among one another are not immune to the dangers posed by other animals. The Crakers learn, indeed, that bobkittens can bite and wolvogs are threatening (161). They also learn that in response to dangers such as these they may have to use violence, as they do when they beat a bobkitten with rocks to make it leave an innocent child alone (157). They understand that the world is a dangerous place and that Snowman may require protection from that world (161). In other words, even if the Crakers might avoid hierarchy among themselves—which the novel suggests is unlikely—they still represent one species among many who experience suffering related to domination and the dangers posed by others.

Although Crake worked to eliminate the suffering brought about by human struggles for power and domination, his focus on problems related to human hierarchies caused him to overlook the suffering tied to struggles for resources among non-human animals. Crake created the Crakers to restrain human desire and eliminate human-over-nature hierarchy, but he did not create non-human animals who could similarly resist domination and suffering. By all accounts, the Crakers are more peaceful and loving than semi-monogamous, war-waging human beings. But they still experience pain—the physical threat of wolvogs, the psychological suffering involved in living in a dangerous world, and the anxiety of missing those they love. And they still live in a world that involves danger, domination, and power struggles. Thus, Crake's ecotopian desire to produce a sustainable world beyond hierarchy proves untenable because of the natural relations among animals—herbivore, omnivore, and carnivore—who live in a world with limited resources.

The novel, then, critiques Crake's ecotopian vision on both ethical and practical grounds. This critique, in turn, participates in a broader debate that is already active in the scholarly realm of science studies—a debate that wrestles with the complex nature of knowledge production in the sciences. Scholars such as Kaushik Sunder Rajan and Catherine Waldby among others have usefully explicated the relationship between biotechnology and capitalism with which *Oryx and Crake* is concerned. As Rajan explains, the sciences and the social, or more specifically, the sciences and the economic, are in a continuous process of "coproduction" such that "biotechnology is a form of enterprise inextricable from contemporary capitalism" (3). According to Waldby, this inextricable link between biotechnology and capitalism produces biovalue, which she defines as "the yield of vitality produced by the biotechnical reformulation of living processes" (310). This yield, as Waldby explains, consists of both a use value, or "some contribution to human health," and an exchange value, or "biological commodities that can be bought and sold" (310). But the discussion of biovalue and biocapital that scholars like Rajan and Waldby present cannot be neatly delimited to the worlds of science and capitalism alone. As Rajan explains, the sciences coproduce with the social more broadly understood rather than with the economic alone (3). Thus we find scholars like Sarah Franklin discussing other forms of value—including emotional or symbolic value—that also play an important role in the production and meaning of

biotechnologies.<sup>4</sup> In short, most scholars of science studies acknowledge that science occurs not in a vacuum of objectivity but in a world driven by economics, politics, culture, emotion, bias, racism, classism, sexism, heterosexism, and countless other forces.

*Oryx and Crake* similarly acknowledges the complex forces that drive science. Crake is not merely a scientist whose biological determinism and capitalist commodification of life cause him to destroy humanity. Rather, he exists in a complex world shaped not only by profit and control but by ideals such as egalitarianism, peace, and ecological sustainability. In other words, if as readers we assume that capitalist-science is the sole cause of the biotechnologies that Crake creates and the sole cause of humanity's consequent downfall, we may underestimate the complexity of knowledge production. To fully appreciate the novel and the voice it brings to debates in science, animal, and other studies, we must understand that the complex amalgam that can produce someone like Crake is composed of a number of discourses, including those available in ecological utopianism.

Given the complicated ways in which knowledge is built, if Atwood were to blame only science or capitalism for the potential downfall of humanity, she would be inevitably reductionist. Fortunately, with *Oryx and Crake* Atwood does not disappoint. Ecotopianism, alongside science and capitalism, receives a fair deal of criticism in this novel; however, it too cannot be held exclusively responsible for the end of humanity. What cuts across these different realms—realms that trade in different kinds of (bio)value—is the potential for human beings to overstep our bounds, to believe that we can remake the planet in the name of perfection, to believe that we can create utopia. With this novel, Atwood reminds us that none of us—whether we are ecocritics or free market capitalists—has all the answers. She reminds us to approach with caution any sweeping plan for the elimination of Earth's problems or any single explanation for their causes—to approach with caution utopianism.

## Endnotes

<sup>1</sup> For articles on transgenic species much like the ones Atwood depicts, see "Spider Silk Fibers Spun from Soluble Recombinant Silk Produced in Mammalian Cells" by Anthoula Lazaris et. al. and "After Dolly, a Pharming Frenzy" by Elizabeth Pennisi.

<sup>2</sup> Though Compound scientists maintain a belief in human exceptionalism, the novel offers other ways of responding to the fact that corporate science diminishes human/animal distinctions. A young Jimmy for instance does not "want to eat a pigoon because he thought of the pigoons as creatures much like himself" (24). Similarly, the God's Gardener's refuse to eat anything with a face, deeming non-human animals as worthy of ethical treatment by virtue of their sentience and the qualities that they share with human beings. Responses such as these can logically rely on a belief in the dignity of life and the importance of minimizing suffering—a belief not entirely inconsistent with human exceptionalism. Indeed, a human exceptionalism that emphasizes the need to treat human beings ethically by virtue of their inherent dignity might be easily extended to animals if the concept of "the human" is extended to "that which is sentient." When this is the case, special ethical treatment is offered to all creatures on the basis of an exceptionalism associated with the potential for suffering rather than with the potential for a particularly human form of suffering. Rather than expand their definition of the human, however, the Compound scientists restrict it—removing plebs from their understanding of what constitutes the human.

<sup>3</sup> Atwood's second book in the MaddAddam trilogy, *The Year of the Flood*, depicts the daily lives of the God's Gardeners, a group of Pleebland-dwelling activists whose religious environmentalism positions them in opposition to the corporate scientific world of the Compounds. With a devotion to minimalist, organic living, the God's Gardeners attempt to create their own utopia by building a small, sustainable community free of "unnatural" influences like those genetic manipulations common to the Compounds. This reclusive, vegetarian society might be categorized as ecotopian insofar as it seeks to create a world in which human/nature relations have been remade in the name of sufficiency while human desire has been restrained and redefined. Unlike many ecotopias, however, the God's Gardeners embrace rather than eliminate hierarchy. Indeed, members of the group are explicitly placed into a hierarchy via a system of naming and numbering. Adam One, for instance, is the leader of the Gardeners, and he uses his position of power to preach the doctrine that Gardeners are expected to accept. Members of the Gardeners can gain higher status within the group as they demonstrate loyalty and gain skills valuable to the community; when this occurs, they can become an "Eve" or an "Adam," and they are assigned a number to differentiate them from other Eves and Adams. Such a clear hierarchy—attached, no doubt, to the religious inclinations of the God's Gardeners—differentiates the ecotopia of the Gardeners from that which Crake seeks to create by eliminating hierarchy. Crake's ecotopia, which uses science to eliminate hierarchy and power struggles among human beings, stands in contrast to the God's Gardener's ecotopia, which relies on religion to remake human/nature relations while maintaining hierarchy among human beings. If, as some have suggested, Atwood's trilogy is a morality play, then the upcoming completion of that trilogy may further elaborate on the moral ramifications of enacting these and perhaps other kinds of ecotopian visions.

<sup>4</sup> See Sarah Franklin, "Embryonic Economies: The Double Reproductive Value of Stem Cells," *BioSocieties* 1:1 (2006): 71-90.

## Works Cited

- Armbruster, Karla. "Buffalo Gals, Won't You Come Out Tonight': A Call for Boundary-Crossing in Ecofeminist Literary Criticism." In *Ecofeminist Literary Criticism: Theory Interpretation, Pedagogy*, edited by Greta Gaard and Patrick D. Murphy, 97-122. Champaign: University of Illinois Press, 1998. Print.
- Atwood, Margaret. *Oryx and Crake*. New York: Anchor Books, 2003. Print.
- Barnhill, David Landis. "Conceiving Ecotopia." *Journal for the Study of Religion, Nature & Culture* 5:2 (2011): 126-144. EBSCO. Web. 7 Dec 2012. <<http://connection.ebscohost.com/c/articles/66735177/conceiving-ecotopia>>.
- Berghaller, Hannes. "Housebreaking the Human Animal: Humanism and the Problem of Sustainability in Margaret Atwood's *Oryx and Crake* and *The Year of the Flood*." *English Studies: A Journal of English Language and Literature* 91:7 (2010): 728-743. Print.
- Botta, Giuseppina. "Faustian Dreams and Apocalypse in Margaret Atwood's *Oryx and Crake*." In *Local Natures, Global Responsibilities: Ecocritical Perspectives on the New English Literatures*, edited by Laurenz Volkmann, Nancy Grimm, Ines Detmers, and Katrin Thomson, 243-255. Amsterdam: Rodopi, 2010. Print.
- Clark, Nigel. "Animal Interface: The Generosity of Domestication' in Cassidy." In *Where the Wild Things Are Now*, edited by Rebecca Cassidy and Molly Mullin, 49-70. Oxford: Berg Publishers, 2007. Print.
- Cooke, Grayson. "Technics and the Human at Zero-Hour: Margaret Atwood's *Oryx and Crake*." *Studies in Canadian Literature/Etudes en Littérature Canadienne* 31:2 (2006): 105-25. ePublications@SCU. Web. 7 Dec 2012. <[http://epubs.scu.edu.au/cgi/viewcontent.cgi?article=1537&context=sass\\_pubs](http://epubs.scu.edu.au/cgi/viewcontent.cgi?article=1537&context=sass_pubs)>.
- de Geus, Marius. *Ecological Utopias: Envisioning the Sustainable Society*. Utrecht, the Netherlands: International, 1999. Print.
- de Geus, Marius. "Ecotopia, Sustainability, and Vision." *Organization & Environment* 15 (2002): 187-201. *Sage Journals*. Web. 7 Dec 2012. <[http://oae.sagepub.com/content/15/2/187.abstract?ijkey=c8dd77d69ee9a5f9cbb2888598340656d25fd29b&keytype2=tf\\_ipsecsha](http://oae.sagepub.com/content/15/2/187.abstract?ijkey=c8dd77d69ee9a5f9cbb2888598340656d25fd29b&keytype2=tf_ipsecsha)>.
- Derrida, Jacques. "The Animal that Therefore I Am (More to Follow)." Translator David Wills. *Critical Inquiry* 28 (2002): 369-418. *JSTOR*. Web. 7 Dec 2012. <<http://www.jstor.org/discover/10.2307/1344276?uid=17922368&uid=3739568&uid=2129&uid=2&uid=70&uid=3&uid=17922352&uid=67&uid=62&uid=3739256&sid=47699113865557>>.
- DiMarco, Danette. "Paradise Lost, Paradise Regained: Homo Faber and the Makings of a New Beginning in *Oryx and Crake*." *Papers on Language and Literature* 41 (2005): 170-95. Print.
- Dunning, Stephen. "Margaret Atwood's *Oryx and Crake*: The Terror of the Therapeutic." *Canadian Literature* 186 (2005): 86-101. Print.
- Franklin, Sarah. "Embryonic Economies: The Double Reproductive Value of Stem Cells." *BioSocieties* 1:1 (2006): 71-90. *LSE Research Online*. Web. 7 Dec 2012. <<http://eprints.lse.ac.uk/943/>>.
- Haraway, Donna Jeanne. *When Species Meet*. Minneapolis: University of Minnesota, 2008. Print.
- Latour, Bruno. *Science in Action: How to Follow Scientists and Engineers through Society*. Cambridge, MA: Harvard UP, 1987. Print.
- Lazaris, Anthoula, et. al. "Spider Silk Fibers Spun from Soluble Recombinant Silk Produced in Mammalian Cells." *Science* 295:5554 (2002): 472-476. Web. 29 June 2012. <<http://www.sciencemag.org/content/295/5554/472.abstract>>.
- Pennisi, Elizabeth. "After Dolly, a Pharming Frenzy." *Science* 279:5351 (1998): 646-648. *Science Online*. Web. 7 Dec 2012. <<http://www.sciencemag.org/content/279/5351/646.summary>>.

- Sargisson, Lucy. "Green Utopias of Self and Other." In *The Philosophy of Utopia* edited by Barbara Goodwin, 140-156. Oxford and New York: Routledge, 2001. Print.
- Sunder, Rajan Kaushik. *Biocapital: the Constitution of Postgenomic Life*. Durham: Duke UP, 2006. Print.
- Waldby, Catherine. "Stem Cells, Tissue Cultures and the Production of Biovalue." *Health: An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine* 6:3 (2002): 305-323. *Sage Journals*. Web. 7 Dec 2012. <<http://hea.sagepub.com/content/6/3/305.abstract>>.