

**Children of Oryx, Children of Crane:
Human-Animal Relationships in Margaret Atwood's *MaddAddam* Trilogy**

A PROJECT
SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL
OF THE UNIVERSITY OF MINNESOTA
BY

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IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF LIBERAL STUDIES

August 2014

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As William Blake noted long ago, the human imagination drives the world. At first it drove only the human world, which was once very small in comparison with the huge and powerful natural world around it. Now we have our hand upon the throttle and our eye upon the rail, and we think we're in control of everything; but it's still the human imagination, in all its diversity, that propels the train... Understanding the imagination is no longer a pastime or even a duty but a necessity, because increasingly, if we can imagine something, we'll be able to do it.

— Margaret Atwood

And in these moments of nakedness, under the gaze of the animal, everything can happen to me, I am like a child ready for the apocalypse.

— Jacques Derrida

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ACKNOWLEDGEMENTS

Thank you:

To my adviser Jen Caruso, who showed me so many new paths. To DonnaMae Gustafson, Ricardo Cervantes, and Sara Nystuen, who provided insightful feedback. To Sharon Yntema, who first put these novels in front of me. To Greg and Judy Franken, who raised me to love books and animals. To Ella and Rocket Man, who were unjustly displaced on my lap by a computer for far too long. And to Niko Tomlinson, who held the world together so that I could escape it.

INTRODUCTION: TEACHING BIRDS HOW TO FLY

Every summer in Wisconsin, human beings are teaching birds how to fly. These birds—whooping cranes—have been nursed back from the brink of extinction by a network of organizations. The staff and volunteers dress up in crane costumes and wordlessly teach young cranes how to find food, how to get a running start to take off into flight, and then every fall—leading them in ultralight planes—how to migrate south.

One part of the whooping crane conservation program is headquartered at the Audubon Nature Institute in New Orleans, where each crane is painstakingly reared in an effort to keep the species, in some respects, “wild.” About one hundred feet away from the Audubon Nature Institute, visitors can experience birds in a much different way: by ordering the “signature fried chicken” at the Audubon Clubhouse Café. Fifty miles north is Sanderson Farms, the third largest poultry producer in the United States, whose “state-of-the-art facilities provide us the capacity to process more than 9.375 million chickens per week” (“Investors: Sanderson Farms”). Back at the Audubon Zoo store, visitors can buy stuffed tiger shark toys, with proceeds supporting conservation efforts; upriver at New Orleans City Park each spring is a “fish rodeo” to catch and destroy cichlid fish, an invasive species that got into the river by people tiring of cichlids as aquarium pets and dumping them in the water (Mardon). At the nearby Tulane University Primate Research Center, researchers study “human health problems that require the use of nonhuman primates to understand the disease” (“About the TNPRC”), and the Tulane Transgenic Mouse Facility “provide[s] a service for the Tulane University community by supplying the demand for the creation of transgenic and knockout mice” to study human genetic diseases (“The Tulane Transgenic Mouse Facility”).

In this fifty-square-mile area of New Orleans, the human-animal interactions are manifold and represent a microcosm of those navigated every day in every community. Across the country, individuals and communities engage in constant negotiations and value judgments about what they owe to animals and which ones. The tensions between humans and animals, culture and nature, inside and outside, deepen with the progression of environmental destruction and climate change.

Human society has passed the point where it can just step back and let nature self-correct. Recent reports suggest humans have already put into motion, irreversibly, sixty-nine feet of sea level rise (Mooney). Eighty-four percent of endangered and threatened species in the United States are “conservation-reliant,” like whooping cranes, meaning their survival would not be likely without constant conservation work (Goble, et al. 869). Journalist Jon Mooallem calls this “gardening the wilderness” (4). Considering the environmental changes, a “hands off” approach at this point would leave a country full of zebra mussels, kudzu, cichlids, and starlings.

Human activity has had such a profound impact on ecosystems that some scientists, such as Nobel Prize winner Paul Crutzen, argue that humans have propelled the planet into a new geologic epoch called the Anthropocene (the first new epoch since the beginning of the Holocene 11,700 years ago). Seventy percent of biologists think the planet is in the midst of a mass extinction that could eliminate most of the earth’s species (Warrick). Losing these species feels like a tragedy, but it can be difficult to articulate exactly why. Attempting to do so leads to tough questions: Should the species that exist now always exist? Can a species be conserved if its ecosystem is not? Why revere some animals but ignore, eat, or abuse others? Why do people rely upon animals to define what is human?

Questions like these are at the heart of Margaret Atwood's *MaddAddam* trilogy, comprising *Oryx and Crake* (2003), *Year of the Flood* (2009), and *MaddAddam* (2013). In these stories, set in the near-future United States, a human-engineered global pandemic wipes out most of the human race. Readers experience both the pre-pandemic world of unchecked corporate greed and extreme economic disparity, and the post-pandemic world in which a handful of human survivors attempt to build a community with and among the other survivors: genetically engineered animals and a newly-created human-like species.

Like her scientist parents, Atwood observes current phenomena, creates a hypothesis, and follows it through to a possible conclusion. Although the work clearly exists in the realm of fiction, Atwood has asserted many times that she “put nothing in it that does not have its corresponding clipping in the ominous brown research box in the cellar. That is, nothing is pure invention though I have to admit I cranked a few things up a bit” (Atwood, “*Oryx and Crake Revealed*”). It is a vision of one possible future that could result from the trajectory humans are currently on, which makes it a fruitful space for ethical discussions.

As readers, we travel into the world of *MaddAddam*, and then, back into our own. But the world we return to is not quite the same one we left. The change is subtle and hard to define. Perhaps the angle of the sun seems more severe, or birdcalls clearer. Perhaps we notice something new in the faces of our pets—a familiar strangeness, or a strange familiarity. Such is the power of fiction: not only to transport us to a new world, but to return us to a changed one.

This power has practical applications, as fiction can place us in situations we have not considered in our day-to-day lives. Fictional works such as Atwood's “allow us to consider ethical problems that fall outside our experience” (Chan 399). Part of the difficulty in making large cultural or policy decisions on genetic engineering and environmental sustainability is

attempting to legislate an unknown future. Speculative fiction can be one helpful way to think through these scientific and ethical quagmires.

When used as an “anthropology of the future,” fiction helps readers examine their values and the ways they might react to future events and discoveries. As Atwood herself argues:

Literature is an uttering, or outering, of the human imagination. It puts the shadowy forms of thought and feeling—heaven, hell, monsters, angels, and all—out into the light, where we can take a good look at them and perhaps come to a better understanding of who we are and what we want, and what our limits may be. (Atwood, “*The Handmaid’s Tale*” 517)

Taking ethical issues from the real world and setting them in another allows them to be studied without some of their baggage, helping to bring unexamined biases into the realm of analytical discourse.

As science and literature scholar Joan Haran writes, “The specific advantage that speculative science fiction has over conventionally presented social and political theory is that it can both articulate and contain contradictory and ambivalent arguments. It thus constructs readers as active participants in the shaping of debates within social theory” (154). The first step in moving toward a desired future is envisioning it. Fiction allows readers to imagine many possible futures, leading to a discussion of how to get to the one we want, or, in the case of dystopic texts, they can show us a future we do not want but might get.

The *MaddAddam* trilogy by Margaret Atwood is one such work of speculative fiction. The world created (and destroyed) in the text is an excellent discursive space in which to consider, in a new way, issues that have become polarized to the point of impasse in both public and private debate in the United States. Although set in a speculative future, the trilogy reflects our current society’s increasingly troubled relationship with animals. Populated as it is with strange lab-created creatures, the trilogy can appear on the surface as a warning against the

dangers of runaway biotechnology, but closer reading puts runaway capitalism and corporate greed in Atwood's crosshairs instead.

My purpose in this paper is to analyze how humans and animals interact in *MaddAddam*, how these interactions connect to real world trends, and why it is important to more deeply understand human-animal relationships, both within and beyond literature. In *MaddAddam*, the tragedies of unregulated capitalism are played out most strikingly—as they are in real life—upon women and animals. In that vein, I ground my analysis of the trilogy's human-animal interactions in feminist theory in order to illuminate intersecting oppressions and spark constructive discussions that place humans within, not above, their environment.

In Chapter One, I examine *MaddAddam*'s portrayal of animals as commodities and objects of consumption, both literal and metaphorical, and the ways in which the commodification of animals and marginalized people overlap. My analysis in Chapter Two moves animals from objects to subjects, identifying places in the text where animal agency can be located, while recognizing the complexities of judging agency in beings who experience the world in radically different ways from humans. In Chapter Three I explore *MaddAddam*'s examples of both “becoming-animal” and “becoming-with animal,” and use the post-pandemic community to argue for an ethos of symbiosis. My conclusion looks at how readers can move beyond both apocalyptic resignation and ecotopian naïveté, using *MaddAddam* as an inspiration for more thoughtful engagements between humans, animals, and the environment.

Among the many substantial changes needed, I argue that any plan for a sustainable future will necessarily involve a radical reworking of how humans co-exist with other species, including the ones they engineer. Interspecies relationships are complex and changing rapidly: laboratory animals are used as human stand-ins, factory farms are pushing for exponential

growth year in and year out, and people in crane costumes are teaching birds how to fly. It can feel like we are teetering on the edge of either collapse or transformation. These entanglements yield no easy answers, and Atwood recognizes this. *MaddAddam* is notable for the way in which it embraces ethical complexity and allows liminal, hybrid, and chimerical beings to destabilize the dominant culture, opening up new possibilities of resistance. The novels complicate but do not resolve the notion of human exceptionalism. *MaddAddam* challenges the extremes of both capitalist and environmentalist worldviews, presenting instead a more nuanced view of humans' place on a shared planet.

INTERLUDE: BRIEF SUMMARY OF *MADDADDAM*

The reader of this paper does not need to be familiar with the *MaddAddam* trilogy to follow my arguments. However, a short summary of the books will help ground the discussion.

***Oryx and Crake* (2003)**

Oryx and Crake is a twist on the “last man on earth” trope. It tells the story of Snowman, who thinks he is humanity’s sole survivor, struggling to stay alive and sane after the global pandemic engineered by his best friend Crake. Crake also engineered a new humanoid species “free from sexual jealousy, greed, clothing, and the need for insect repellent and animal protein—all the factors Crake believed had caused not only the misery of the human race but also the degradation of the planet” (Atwood *MaddAddam* xiii), whom Snowman calls “Crakers.” The narrative alternates between Snowman’s present and flashbacks to his pre-pandemic life. In that life, Snowman was Jimmy, a boy growing up in the Compounds—corporate, highly policed biotech villages cut off from the slummy “pleeblands.” Jimmy’s parents were scientists working with “pigoons,” laboratory pigs used to grow human organs, including human neocortex tissue. The preternaturally smart pigoons are just one of the genetically engineered hybrid species thriving in the post-pandemic world. The book ends with Snowman’s discovery that there are other human survivors. Delirious with infection, he hovers outside their camp, wrestling with the decision of whether or not to make contact.

***Year of the Flood* (2009)**

Year of the Flood takes place during the same time frame as *Oryx and Crake* but presents a different part of the pre-pandemic society. The novel tells the story of two other pandemic survivors: Toby and Ren. The narrative alternates between Toby’s point of view and Ren’s, and

also between their post-pandemic situation and their lives before. Toby grew up in the pleeblands and scraped by in grueling minimum wage jobs before joining the God's Gardeners environmental cult, mostly to escape her sexually abusive boss. Although hesitant about the religion at first, Toby spends many years with the Gardeners, rising to the ranks of leadership. When the pandemic hits—or as the Gardeners call it, “the flood”—she is in hiding from her old boss, working at a spa. That is where she barricades herself, waiting for the plague to pass. The flashbacks of fellow flood survivor Ren tell how her itinerant mother led her through a childhood alternating between the Compounds and the God's Gardeners rooftop garden in the pleeblands. Ren and her best friend Amanda navigate the unusual territory of growing into teenage girls while living in an ascetic cult. After college, Ren becomes a sex worker at one of the nicer clubs. She is locked in a quarantine room in this club when the pandemic hits. Amanda makes her way across the country to rescue Ren, only for them both to be captured by Painballers, vicious criminals who rape and torture the women. Ren escapes and finds Toby, who nurses her back to health. They find a small community of other survivors, “MaddAddamites” with ties to the God's Gardeners. As the book closes, Ren and Toby go on a mission to rescue Amanda, getting to the Painballers' camp at the same time as Snowman.

MaddAddam (2013)

MaddAddam continues the post-pandemic story from the moment where the first two books converge. Although the Painballers escape, Ren and Toby rescue both the traumatized Amanda and the nearly dead Snowman and bring them back to the MaddAddam home base. Like the first two books, *MaddAddam*'s narrative structure alternates between the current action and pre-pandemic flashbacks, this time exploring the life of Zeb, who was part of both the God's Gardeners and the splinter bioterrorist MaddAddam group. This final book adds a third type of

narrative, that of the stories that Toby tells to the Crakers, who are endlessly curious about their origins and the mythology that Snowman invented for them. The human survivors and the Crakers are both vulnerable to the growing threat of the Painballers. So, it turns out, are the pigoons, whose intelligence is becoming ever more visible. With the Crakers as translators, the pigoons ask the humans for help killing the Painballers. *MaddAddam* culminates in a battle between the Painballers and this strange new alliance of humans, Crakers, and pigoons. Its denouement gives us a taste for the new society they form, one that has the potential to create a new kind of future—or to recreate the problems of the past.

CHAPTER 1: CONSUMING ANIMALS

Material and Metaphorical Currencies

“8 a.m., television: A dancing cartoon pig is selling bacon to a farmer.” So begin my notes on a recent day during which I attempted to write down all animal representations I encountered. They continue:

8:10 a.m., radio: Singing cows selling chicken sandwiches

8:15 a.m., walking: Gophers and eagles as college mascots, billboard of cow in green field selling ice cream

8:30 a.m., grocery store: Cartoon rabbits on pasta boxes, bears on toilet paper packages, pigs on bacon packages (wearing top hats), tuna on tuna fish cans (wearing glasses), cats on customer’s t-shirt, bird tattoo on customer’s arm, child with bear ears on sweatshirt and holding teddy bear, eagles on dollar bills

My notes stretch to several pages, and surely I missed plenty; animal symbolism is woven so deeply into my surroundings that much of it no doubt passed under my radar. Significantly, only a handful of actual, live animals appear in my notes: my pet cats, the neighbors’ pet dogs, and the squirrels and sparrows at my bird feeder.

And so it goes for many adults in the United States. For children, animal symbolism is especially pronounced. Indeed, representations of animals are some of the first things most American babies see upon entering the world, although it may be months before they set their eyes on actual animals other than pets. The saturation of animal symbols goes far beyond the occasional teddy bear or ugly duckling story. Jon Mooallem recalls looking around his daughter’s room and seeing animals everywhere he turned: “[T]hey were foraging on the pages of every bedtime story, and my daughter was sleeping in polar bear pajamas under a butterfly mobile with a downy snow owl clutched to her chin. Her comb handle was a fish. Her toothbrush

handle was a whale. She cut her first tooth on a rubber giraffe” (1). Mooallem realizes how few actual animals are part of his daughter’s life, and wonders how many of the real animal counterparts to the symbols his daughter knows will be extinct by the time she grows up.

In 1980, art critic John Berger had noted that for children in the industrialized world, “No other source of imagery can begin to compete with that of animals” and argued that “it was not until the 19th century that reproductions of animals became a regular part of the decor of middle class childhoods—and then, in this century, with the advent of vast display and selling systems like Disney’s—of all childhoods” (22). As my notes reveal, these symbols accompany us into the spaces of adulthood, such as grocery stores.

There are degrees of significance; bluebirds decorating wallpaper carry a different symbolic weight than something more totemic like the bald eagle, wrapped up with patriotism and war and history, or something more commercial, like the contented Holstein on a carton of milk. These icons have real implications for the actual animals behind them. As the ultimate American totem, the bald eagle has enhanced protection under law; simply possessing eagle feathers can result in fines and jail time. The happy cow grazing in a green field on a carton of milk elides the real cows involved in milk production in the United States, only a small percentage of whom are grass-fed (Weber, Heinze, and DeSoucey 533).

In *Animal Capital*, Nicole Shukin examines “the double sense of animals’ material and metaphorical currency” (5). Nonhuman animals are used as material, embodied capital in very real ways—they are bought, sold, traded; created and destroyed; worked as laborers; and pampered or abused as pets. The 9.1 billion farmed land animals (“Farm Animal Statistics”), 25 million vertebrate lab animals (USDA), and 179 million pet cats and dogs (“Pets by the Numbers”) in the United States alone, along with animals eaten as seafood, bomb- and drug-

sniffing dogs, police horses, seeing-eye dogs, circus animals, aquarium performers, and carthorses are living beings whose bodies and labor are commodified.

Capitalism also puts animals to work *symbolically*, in all the ways mentioned above, and perhaps most tellingly in advertisements. Animal symbols sell us everything from life insurance to snowmobiles, and there is often a profound disconnect between the animal symbol used in an advertisement and the real animals affected by the product being sold. So, for example, Coca-Cola can use animated polar bears to sell its product while simultaneously contributing to the depletion of real polar bears' habitats through climate change (those billions of plastic bottles are made out of and use energy from fossil fuels) with seemingly no acknowledgement of the irony. One reason "spokesanimals" are so common in capitalism is that they can give the product being sold a false "natural" air. "What makes animal signs unusually potent discursive alibis of power," argues Shukin, is partly "that particularist political ideologies, by ventriloquizing them, appear to speak from the universal and disinterested place of nature" (5). And as nature becomes a smaller part of the average American's life, the authority it imparts gains tender.

Nature and wild animals have all but disappeared in *MaddAddam's* world, but animal symbols have not. From the benign to the insidious, over and over again the objects of capitalism are marked with representations of animals. Echoing the observations of Mooallem and Berger, Atwood makes a point of populating her world with, for example, giraffe wallpaper (OC 232), lighters shaped like frogs (YF 339), clocks with bird calls (OC 55), kangaroo pajamas (OC 50), whale-patterned underwear (OC 50), comforters with cats playing fiddles and laughing puppies (MA 36), and curtains with cartoon fish (MA 263). None of these representations are about the actual animal, of course, but about the anthropomorphized caricatures, using animal images to reflect the human. Toby, one of the survivors of the plague, muses on this in *MaddAddam*: "They

did love to depict animals endowed with human features...Huggable, fluffy, pastel bears, clutching Valentine hearts. Cute cuddly lions. Adorable dancing penguins. Older than that: pink, shiny, comical pigs, with slots in their backs for money” (MA 261). Piggy banks are perhaps the ultimate animal/capital hybrid symbol—a fitting one for Toby to call upon in this analysis. In the “pleeblands,” people dressed in animal costumes hand out flyers on the street advertising various beauty treatments. Animals are not only used in advertising the treatments, but their bodies feature in the procedures themselves, such as “iguana-based hue changes” and “flat-wart leech peels” (YF 260). Again we see the confluence of material and metaphorical currencies.

This commodification presented in the story foreshadows more violent objectification and fetishization of animals, especially rare breeds. There are websites “where you [can] shoot exotic animals online without leaving your office chair” (MA 194). A store called Slink trades in rarity and authenticity, selling the skins of endangered species: “they killed the animals on the premises because the customers didn’t want goat dressed up as oryx or dyed wolf instead of wolverine. They wanted their bragging rights to be genuine” (YF 31). For entertainment, in between watching child pornography and live executions, high schoolers Jimmy and Crake sometimes watch “animal snuff sites” like “Felicia’s Frog Squash,” although they get bored with them quickly because “one stomped frog, one cat being torn apart by hand, was much like another” (OC 82). Another site features contestants eating live animals, competing for “prizes of hard-to-come-by foods.” Jimmy notes, “It was amazing what people would do for a couple of lamb chops or a chunk of genuine brie” (OC 85). This is a salient example of the way in which some species are valued over others: low-value, presumably “non-meat animals” are treated with disgust and seen as tools to get to the highly-valued flesh of a lamb or milk of a cow. One of the few remaining animals to be found in the fished-out oceans is “shore fish, a species too paltry

and tasteless to have been coveted and sold and exterminated” (OC 100). The value of species in the pre-pandemic world is assigned based on how useful they are to humans, or how tasty.

These value rankings and the categories created for animals—“pets,” “friends,” “pests,” “meat”—are highly correlated with economics. The well-to-do in *MaddAddam*’s gated Compound communities can afford to keep their pets’ heads frozen, alongside their own, in cryogenics compounds (YF 295). But out in the pleeblands, abandoned pet stores symbolize the increasing economic disparity. Passing by one, a character notes that there is “not much call for pet pampering” in the pleeblands, “because if you did have a cat there it was likely to end up in someone else’s deep fryer” (YF 184). When society crumbles, animals—and, as I will establish, marginalized people—are the first to be seen as expendable.

To Eat or To Be Eaten

Those who are marginalized are also the first to be seen as edible. The novels employ various degrees of cannibalism, an analysis of which helps illuminate intersecting oppressions and the ways in which a culture “meatifies” its most vulnerable (Bouson 12). Cannibalism in *MaddAddam* takes three main forms: consumption of lab animals with human genetic material, as part of the pleebland fast food chain, and as a display of dominance or intimidation. (It occurs once for survival purposes, when Zeb eats part of his dead copilot after a helicopter crash in the Alaskan wilderness.)

MaddAddam’s laboratory pigs, or “pigoons,” necessarily have some human DNA, so that the human organs they house will not be rejected. The scientists at the OrganInc Farms Compound even begin introducing human neocortex tissue into the pigoons, in search of an Alzheimer’s cure. All the while, the Compound cafeteria is serving more and more pork. Could it be coincidence? To “set the queasy at ease, it was claimed that none of the defunct pigoons

ended up as bacon and sausages; no one would want to eat an animal whose cells might be identical with at least some of their own,” but as “meat became harder to come by, some people had their doubts. Within OrganInc Farms itself it was noticeable how often back bacon and ham sandwiches and pork pies turned up on the staff cafe menu” (OC 23). All sorts of cognitive heavy lifting is required here. To start, the use of pigs in the lab means acknowledging they are similar enough to humans to act as human stand-ins, but different enough that experimenting on them is not unethical. From there, what makes a pig an acceptable meal but a pigoon an unsettling one? How much human genetic material can be put into a pig before eating it becomes taboo? The pigoons in the lab are highly protected from germs, theft, and corporate bio-sabotage. But the “defunct” pigoons—or, as Jimmy’s dad says, “all those duds” (OC 56)—get turned into meat, suggesting that when bodies lose their value in a capitalist system, they are much more easily “meatified.”

For example, all people in Atwood’s future United States are not equally likely to end up as a SecretBurger. SecretBurger is the prominent fast food chain in the pleeblands, notoriously indiscriminate about what type of bodies go into its meat grinders. The pleebland gangs run “corpse disposals, harvesting organs for transplant, then running the gutted carcasses through the SecretBurger grinders. So went the worst rumors. During the glory days of SecretBurgers, there were very few bodies found in vacant lots” (YF 33). Even though everyone knows this is happening, the only time the authorities (a privatized, corrupt group called the CorpSeCorps) step in is when someone too “valuable” goes missing:

The CorpSeCorps had closed them down after one of their high-placed officials went slumming in the Sewage Lagoon and his shoes were discovered on the feet of a SecretBurgers meat-grinder operator. So for a while stray cats breathed easier

at night. But a few months later the familiar grilling booths were sizzling again, because who could say no to a business with so few supply-side costs? (YF 34)

The people who get eaten first when people-eating starts are the ones on the margins, deemed “expendable” by those in power.

SecretBurgers is an apt place to find Blanco, Toby’s boss when she works there. Blanco is a veteran of Painball, where violent criminals fight to the death and people watch online. In the Painball arena, competitors frequently cannibalize those they kill as a way to show dominance. “Anyone who’d survived Painball more than once had been reduced to the reptilian brain. Sex until you were worn to a fingernail was their mode; after that, you were dinner. They liked kidneys” (MA 9). As a SecretBurgers manager, Blanco wields a kind of sexual cannibalism, along with rape, to torment his female workers. When Toby starts working there, she is warned, “He’ll take a girl apart,” invoking imagery of butchering and meat (YF 35). After Toby escapes from Blanco, he stalks her, yelling, “I see you, stringy-assed bitch! . . . You’re meat!” (YF 255). In the post-pandemic world, the Painballers—who, it turns out, are better prepared than most to survive an apocalypse—capture and repeatedly rape fellow plague-survivor Amanda. They call her “a sex toy you can eat” (YF 417) and attempt to trade her to other survivors for weapons and sheep meat.

In *MaddAddam*, oppression of vulnerable groups, violence against women, and meat all collide—a space Carol J. Adams knows well. Adams’ work draws correlations between patriarchal values and meat eating, and argues that a vegetarian diet can “destabilize patriarchal consumption” (Adams 202). She believes feminism not only analyzes male/female relations, but that “it is also an analytic tool that helps expose the social construction of relationships between humans and other animals” (11). All oppressions intersect; human suffering and animal suffering cannot be fully understood separately. Adams writes of the “absent referent,” that which

“separates the meat eater from the animal and the animal from the end product” (14). For Adams, many problems stem from how far removed modern humans are from the animals who become their food.

Ecofeminist theorist Val Plumwood also writes scathingly about the disconnect between humans and the animals they eat, but she comes to different conclusions from Adams. In fact, Plumwood takes umbrage with what she calls “ontological vegetarianism” like Adams’, which says “nothing morally considerable should ever be ontologized as edible or as available for use” (287). She argues that this view, ironically, relies on human supremacy, placing humans outside embodied existence and positioning them as somehow “above” predation. Ontological vegetarianism also homogenizes all animal “use” into one category of evil, which discourages action against the worst offenses. Plumwood critiques Adams for a framework that “eliminates the difference between much less and more extreme forms of instrumentalism” (297). Hunting is a very different thing from factory farming, Plumwood says, and should be thought of differently. She argues for placing humans “in the food chain in the same way as other animals,” edible and vulnerable to predation (294). She distinguishes between the idea of *food* and that of *meat* to argue that everyone is edible, but no one should be “ontologized reductively as meat” (298).

On this point, Plumwood would appreciate the philosophy of the God’s Gardeners, the environmental religious cult at the center of *Year of the Flood*. Seeing humans as part of the ecosystem is core to their belief system. And far from demonizing predation, something Plumwood takes ontological vegetarians to task over, the God’s Gardeners speak of God as “the Alpha Predator” on Predator Day, one of the many festivals honoring animals that make up the God’s Gardeners’ calendar. Predation takes on enhanced significance after the pandemic. As the

surviving God's Gardeners prepare to venture into the new wilderness, their leader Adam One preaches, "Which is more blessed, to eat or to be eaten?" noting that "Such a question may soon cease to be theoretical" (YF 347). He continues, "We would not be Human if we did not prefer to be the devourers rather than the devoured, but either is a blessing. Should your life be required of you, rest assured that it is required by Life" (YF 347). But although the Gardeners embrace Plumwood's philosophy of humans as part of the food chain, they also practice strict vegetarianism. They work to have as little impact as possible on animals and their environment, as when they pick off and relocate each slug and snail attacking the garden plants they need to survive. The Gardeners respect animal predators at the same time they distance themselves from the system of predation Plumwood endorses, instead calling upon troubling notions of "sacrifice" when eating animals becomes necessary for survival, as in "we are blessed that so many of our Rat relatives have donated their protein to us" (YF 345).

Philosopher Donna Haraway would likely find the Gardeners' denial of the multitude of complex inter-species intimacies far too naive. Haraway has written much about human-animal "intra-actions," but the most relevant to this discussion is her work in *When Species Meet*. Like Val Plumwood, Haraway rejects the ethics of ontological vegetarianism or veganism as too simplistic; humans are too enmeshed in multi-species co-creating to just opt out of it. But this enmeshment does not absolve humans from thinking through the ethics of killing and eating animals. Haraway develops the concept of "killing well," which "honor[s] the entangled labor of humans and animals together... in animal husbandry right up to the table" (80). Additionally, Haraway does not think we can simply insert ourselves in nature in the way that Plumwood would have us do; for humans, nature is always mediated by culture and becomes "natureculture" (25).

As such, Haraway might appreciate the situations in *MaddAddam* that highlight the ambivalent positions of the Gardeners, illuminating the underlying complexities of living together with animals. For example, when picking slugs and snails off their garden plants, the Gardeners often “relocate” them by tossing them over the edge of the roof onto the street below, claiming to believe that they will crawl off and thrive, but most likely knowing that they will get flattened by traffic. And the certainty of their beliefs becomes muddled in some of the grayer areas, like whether it is acceptable to eat pigeon’s eggs:

Adam One said that eggs were potential Creatures, but they weren’t Creatures yet: a nut was not a Tree. Did eggs have souls? No, but they had potential souls. So not a lot of Gardeners did egg-eating, but they didn’t condemn it either. You didn’t apologize to an egg before joining its protein to yours, though you had to apologize to the mother pigeon, and thank her for her gift. (YF 134-5)

Again, we see the allusion to sacrifice on the part of the mother pigeon. More broadly, these kinds of cross-species negotiations give a nod to the ethical complexity of human-animal interactions that Haraway writes about. In the Gardeners’ pre-flood world, the negotiations are always on human terms, but as Chapter Three explores, the post-flood world finds animals involved in the conversations as well.

What all of these theorists have in common is a rejection and condemnation of the commodification of animals, especially through factory farming. The term “factory farming” is used to describe the agricultural-industrial complex created over the last several decades that now supplies ninety-nine percent of the meat consumed in the United States (Foer 12). To Adams, of course, all animal agriculture is part of a system of intersecting oppressions to be rejected. To Plumwood, these suppliers, along with pharmaceutical and other companies practicing animal abuse, are “flesh factories” to be opposed on the basis of their instrumentalization of animal lives, as well as mistreatment of human workers, public health

risks, environmental destruction, and economic injustices (289). In fact, though her theories reject “ontological vegetarianism,” Plumwood supports a more contextual vegetarianism, seeing “plenty of good reasons for being a vegetarian in most modern urban contexts” (289). Her work leaves room for predation and hunting but requires humans “to avoid complicity in contemporary food practices that abuse animals, especially factory farming” (289). Haraway writes, “In principle if not always in personal and collective action, it is easy to know that factory farming and its sciences and politics must be undone” (41). To her, the factory farm system is in direct opposition to her urgings to minimize suffering and find sufficient reason for animal use.

In *MaddAddam*, factory farming looms over the story by omission—its own sort of “absent referent.” There is almost no visible agriculture in the text, even of the dubious nature providing most of our food today. By depicting the fallout of a collapsed factory farming system, Atwood calls upon readers to fill in the back story and think critically about how the system may have contributed to *MaddAddam*’s troubled post-agricultural world. The implied demise of animal agriculture is likely due in part to global warming, which has made entire countries uninhabitable. It is also partially attributable to excess consumption; at one point Zeb says, “There’s at least a hundred new extinct species since this time last month. They got fucking eaten!” (YF 252). All meat production has moved into the lab, which could be a contributing cause to farming’s collapse, or a result, or most likely some of both. Either way, lab-grown meat is central to the text.

Artificial Meat’s Designer Ethics

The food products mentioned in the *MaddAddam* trilogy include “Fish Fingers, 20% Real Fish,” “SoyOBoyburgers,” “Sveltana No-Meat Cocktail Sausages,” “PeaPod Good-as-Real Scallops,” “NeverNetted Shrimps,” “NevRBled Shish-K-Buddies,” and “WyzeBurgers.” “Real”

food is largely found in privileged spaces such as the lavish Watson Crick Institute where Crake goes to school. When Jimmy visits he cannot believe they have real spinach—but it is the real *meat* that Jimmy takes most note of: “real shrimps” (OC 208), “real free-range capon” (OC 292), “real oysters” (OC 289), and “real Japanese beef, rare as diamonds” (OC 289). The best meat goes to the rich or those producing valued labor, which is why Crake and the “numbers people” get shrimp and the “word people” at Jimmy’s dilapidated liberal arts college get CrustaeSoy. Oil workers, crucial to the capitalist economy, are also rewarded. “Nothing was too good for the tanker crews. Pork—they ate a lot of pork byproducts—and chicken, or something next door to it. When it was lab meat it was top grade, camouflaged in sausages or meatloaf so you couldn’t really tell” (MA 61). (Interestingly, scraps from the oil workers’ meat-heavy meals are flown north and dropped in polar bear territory in an attempt to keep this symbolically important species from extinction.)

Those who can afford it can dine at a chain of gourmet restaurants called Rarity, where “in the private banquet rooms—key-club entry, bouncer-enforced—you could eat endangered species. The profits were immense; one bottle of tiger-bone wine alone was worth a neckful of diamonds” (YF 31). Diners are treated to “daring little garnishes of dwindling species: Starling’s tongue pate had been a fad of late” (MA 187). The fact that starlings are mentioned as a dwindling species is a nod to just how much the climate has changed in the trilogy; today, starlings are often listed as an invasive species (Linz, et al.).

While the rich are dining on tigers, much of the rest of the country subsists on lab-grown meat, for both economic and moral reasons. But the text challenges “the notion that fake meat will prove a panacea for the eco-catastrophes wrought by modern meat industries” (McHugh, “Real Artificial” 183). Lab-grown meat promises “no brain, no pain” (YF 262), but because it

still involves animal biological material, it does not completely remove animals from the equation. In the real world, the most successful lab-grown meat so far is grown from cells taken from pigs, “cultured on an embryonic cell isolated from piglets” (McHugh, *Animal Stories* 164). Literature and animal studies scholar Susan McHugh argues that “real artificial meat promises transcendence from animal life but pursues this dream in ways that further compound the numbers and kinds of bodily intimacies that converge in meat eating” (*Animal Stories* 164). In *Year of the Flood*, Ren experiences some of the complexities of the liminal space created by lab-grown meat. After living with the vegetarian God’s Gardeners for years, she is trying to fit in at a new Compound school whose cafeteria serves lab-grown WyzeBurgers. Ren tries to eat one of those burgers, “made of meat cultured on stretchy racks. So no animals had actually been killed. But it still smelled like meat...I peeled the bun off my WyzeBurger and tried to eat that, but it stank of dead animal” (YF 216). Lab-grown meat still involves animal “sacrifice,” something Ren’s hesitancy alludes to.

The meat product most commonly consumed in the *MaddAddam* trilogy is ChickieNobs, basically “meat tubers” (Parry, “*Oryx and Crake*” 251) or “chicken hookworms” (OC 203). This is how Jimmy narrates his first time seeing a ChickieNob creature: “a large bulblike object that seemed to be covered with stippled whitish-yellow skin. Out of it came twenty thick fleshy tubes, and at the end of each tube another bulb was growing” (OC 202).

The conceit of ChickieNobs grows out of two desires: a logistical convenience and a moral convenience. From the standpoint of an über-capitalist culture, this is the most practical way to “make” chicken meat. The animals do not need to be controlled or contained, since they do not move of their own will. The meat can be harvested without killing the creature, so there is no need to waste time creating more creatures. In fact, unless they are destroyed by inter-

corporate bioterrorism, ChickieNobs will live indefinitely. This quasi-immortality means humans get to sidestep the dominant moral dilemma that accompanies eating meat: the fact that eating meat means the death of another being.

Jimmy at first finds the creatures so upsetting he cannot even stomach “real” chicken for a while, but in no time, buckets of ChickieNobs are his standard dinner fare. Jimmy thinks of himself as an animal lover; as such, he carries with him anxieties and ambivalences around meat. The ChickieNobs system provides a convenient way for him to put off thinking through the deeper moral complexities of eating animals while feeling a bit ethically absolved. As Donna Haraway suggests, ChickieNobs “illustrate exactly what Sarah Franklin means by designer ethics, which aim to bypass cultural struggle with just-in-time, ‘high technology’ breakthroughs” (268). Jimmy, raised within the dominant meat culture, latches onto this “solution” which allows him to keep eating meat. Ren, who has spent time outside the dominant culture, is not so easily converted.

Designer ethics can be found in modern day chicken production as well. Instead of addressing the oppressive conditions of industrial poultry farms, effort has gone into altering the animals themselves. Philosopher Bernard E. Rollin “argues that if animals can be modified to be ‘happier’ in the confinement conditions of factory farms, there should be no moral opposition to it” (Warkentin 96). He foreshadows the ChickieNobs by writing in 1995, “[I]f we could genetically engineer essentially decerebrate food animals that have merely a vegetative life but no experiences, I believe it would be better to do this than to put conscious beings into environments in which they are miserable” (Rollin 193). Thus, as environmental ethics scholar Traci Warkentin argues, we move toward dividing mind from body to create “actual meat machines” (97). But what do we lose with this “genetic lobotomy” solution (Warkentin 99)?

Warkentin asserts that when we “reduce all animal life into biological machines, human beings are distorting their own experience of the world, and thus their values and belief systems along with them” (99). As a result, “we are losing the capacity to relate to other animals, our own bodies and other human beings,” an “impoverishment of experience” which we then supplement with virtual experiences (Warkentin 100). This is definitely the case in the world of *MaddAddam*, where much of the entertainment is virtual, at least for those who can afford it. Thrill-seeking is not actual, or actually embodied—it is simulated or viewed. In *MaddAddam*’s world, people can behead a naked woman in virtual reality, watch live executions online, and find any manner of pornography they desire. The simulated violence and sex are mirrored by the simulated meat in the ChickieNobs buckets, each aspect amplifying the others and making them more possible, taking the characters one more step away from embodiment.

ChickieNobs raise another important question: What does it mean when humans create a new class of beings that is unable to live without them? In their dependence, ChickieNobs recall the whooping cranes and other conservation-reliant species from my Introduction, but an important difference is that ChickieNobs were engineered specifically to be reliant. ChickieNobs obviously cannot survive “in the wild.” They cannot really “do” anything other than the thing they were created by humans to do.

And while ChickieNobs may be easy to pass off as science fiction, is the desire that created them really so different from the desire that created the average factory farm chicken of today? The daily growth rate of farmed chickens today is three hundred percent higher than it was fifty years ago (Knowles), so that they can be slaughtered more quickly, usually at around forty-two days old. One of the scientists responsible for ChickieNobs alludes to this when she says, “You get chicken breasts in two weeks—that’s a three-week improvement on the most

efficient low-light, high-density chicken farming operation so far devised” (OC 203). The United States Department of Agriculture recently announced its funding of a project to breed chickens that are more “heat-resistant,” as a response to climate change (Barajas). Every genetic decision during the past fifty to sixty years made when breeding chickens for consumption has been based on making them more productive, easily-managed *things*; every decision has been based on human needs. As a result we have chickens bred with breasts so large they cannot support their own weight and, significantly, cannot live long enough to reproduce (Foer 235). ChickieNobs could not survive without human intervention, but neither could most of the chickens in the United States today, because that is how they are made. Maybe ChickieNobs are not so far-fetched. “Feathers and wings, after all, are an evolutionary adaptation of benefit to bird-as-bird; bird-as-food has neither need nor option to leave the flightless, lightless barns of contemporary industrial food production” (Galbreath 3). These trends wrought by factory farming extend to other species as well. Most of the animals on factory farms today bear little resemblance to their ancestors. Their bodies express the marks of human dominance over nature.

And as conceptions of “nature” change, ethical frameworks for these changes struggle to keep up. Animal welfare decisions are made partially by considering how animals of a given species “naturally behave,” such as rooting for pigs or nesting for chickens. But the novel lab-created beings on the horizon have no “natural habitat” and no genetic or cultural ancestry tying them back to a time outside the lab. When laboratories create beings without “natural” origins, they can conveniently forgo this tedious and complicated moral bargaining: scientists created the creature, so its natural habitat is a laboratory and its inherent animal drives are whatever humans have programmed them to be.

The New Carnivore Movement

The industrial farming system and the “unnatural” new animals it is creating gained increased visibility in recent years, due in part to documentaries such as *Food, Inc.*, released in theaters in 2008, and *Forks Over Knives*, released in 2011. A growing spotlight on the harrowing conditions of factory farms makes the act of eating meat ever more culturally fraught.

Vegetarianism has grown in visibility, if not in practice—Gallup polls show US vegetarians holding steady at around five percent (Newport)—but the backlash against it has also been strong. The 1990s were big for vegetarianism in the United States, but in the early 2000s momentum built around meat eating, coalescing into what science studies scholar Jovian Parry calls the “New Carnivore” movement. Parry argues, “As a hostile backlash against the social progress made by the animal advocacy and vegetarian movements, New Carnivorism denigrates vegetarianism and veganism as outdated, unfashionable, unnatural, puritanical and rude” (*The New Visibility* 3). With 2003’s *Oryx and Crake*, whose characters speak wistfully of the “real meat” of their country’s past, Atwood seems to have anticipated the New Carnivore movement, which emerged strongly around 2008.

Perhaps partly as a response to the growing “unnaturalness” of meat explored in the previous section, New Carnivore writers often appeal to concepts of what is natural. For example, blogger Scott Gold, known as “The Shameless Carnivore,” writes that he cannot understand why people like him, “honest, meat-loving individuals,” are “made to feel morally lacking simply because they consume in a way that’s so natural and elemental” (Gold 4). So little about how people in the United States live and consume today *is* “natural,” though, from the climate-controlled buildings in which they work, to the cars they drive, to the computers on

which they blog about eating meat. The way meat is produced in the United States is particularly unnatural. Yet, the personal essays and other works in the New Carnivorism milieu:

strive to present animals' becoming meat as a humane, benevolent, and wholly 'natural' process. In doing so, they soothe the anxiety that came to characterise the discourse surrounding meat production in the nineteen-eighties and -nineties, when spiralling food scares, well-publicized health risks and increasing popular awareness of the environmental and ethical problems associated with industrial animal agriculture all combined to undermine the traditional prestige of animal flesh in Western societies. (Parry, *The New Visibility* 4)

In the resurging meat culture, consuming animals is not only tied to a "natural," wild man masculinity, but also presented as an unchangeable pillar of humanness itself.

Fitting, then, that not consuming meat is central to *MaddAddam's* nonhuman Crakers. Vegetarianism is not a choice for them, but rather something bred into their genetics. It is one characteristic that indicates their otherness and difference, and marks them as not-human. Interestingly, their vegetarianism is often mentioned in tandem with their gentle nature and infrequent mating, while meat eating is often tied up with other "bestly urges" that, ironically, define humanness. Indeed, one gets the sense from the text that the Crakers could not have been engineered to be peaceful and free of sexual urges, but also meat eaters. While the God's Gardeners are vegetarian and nonviolent by choice, these behaviors have been bred into the Crakers' genetic code, further removing them from the desires and urges seen as part of "human nature." But does focusing on the genetic engineering of the Crakers elide the intensive cultural conditioning that filled the Crakers' days before the plague? They lived in a sterile domed enclosure, every inch monitored by video surveillance and every aspect of the environment controlled by their creator. Everything they know they learned from their teacher Oryx, who got her instructions from Crake. Creating a whole new species also meant creating their culture,

knowledge base, and belief system. It can be hard to tell where the line is drawn between what they are genetically pre-disposed to do and what they do because of cultural transmission and traditions. Come to think of it, that sounds an awful lot like humans, too.

Meet Your Meat

A central part of the New Carnivorism movement is the valorization of slaughter. That old saying, “If slaughterhouses had glass walls, everyone would be a vegetarian” may not ring quite as true anymore. As Parry writes, “killing animals is positively *en vogue*” (*The New Visibility* 4).

For much of the country, animals are still the “absent referent.” But for many New Carnivores, the animal and its death are becoming part of the meat-eating experience again. *The New York Times* explored this “newfound celebration of carnivorousness” in a 2009 story. It found that butchers have suddenly “achieved a kind of microfame” (Williams), and urban dwellers are lining up to kill the animals they eat. The story profiles a farmer with long waiting lists for his classes in hog and turkey slaughter and a butcher in Williamsburg who had to “increase his teaching space sevenfold by the holidays to keep up with demand” for his \$10,000 class (Williams).

In 2011, Facebook founder Mark Zuckerberg vowed to only eat meat from animals he slaughtered himself, saying it would make him more “thankful” (McWilliams). In fact, a lot of people interviewed about their do-it-yourself (DIY) slaughter participation focus on how it affects *them*, how it alters *their* conscience and mindset. The animal could not be more physically present, yet still remains somehow an afterthought to the experience. The DIY butchers interviewed in the media say things like “I don’t want to eat stuff that I haven’t had to work for,” and it was “the connection to my food I really wanted to capture,” keeping the focus

on what the slaughter means to them (Williams). Bioethicist Peter Singer pushes back on this self-reflection: “If it’s just, ‘I can do it, so it’s all right, I’m tough enough to face the reality of killing an animal, therefore it’s OK to eat it’—I don’t think that’s the point” (qtd. in Williams). It still does not take the animal’s experience into account, instead tacitly relying on the myth of the noble “sacrifice” of animals to become our food.

This yearning for connection with “meat animals” and the desire to recapture a romanticized past are signs of people pushing back against the specter of a world like *MaddAddam*’s, full of ChickieNobs and WyzeBurgers. But although it is positioned as a humane or conscious alternative to industrial meat production, this new movement is not always as promising in practice as it sounds in theory. There is an increase in people raising and killing animals in their backyards who are drawn to it because it is faddish but do not understand the commitment it takes to raise an animal humanely, let alone give it a good death. James McWilliams argues, “The claim that DIY slaughter promotes respect for animal welfare seems sensible enough, but it’s routinely belied by backyard butchers who blog. What they publish suggests that killing animals is as likely to desensitize as it is to nurture empathy” for animals (McWilliams). He points to gleeful blogs proclaiming things like “the thrill of killing your own food is an exhilaration better than skydiving” (McWilliams).

Another problem with the new interest in killing animals is that bringing these few examples of “humane slaughter” into visibility has the effect of making more invisible the alarming conditions of life and death for ninety-nine percent of the animals killed for meat in the United States. Parry argues that the valorization of slaughter contains elements of nostalgia for a pre-industrial animal husbandry, but that this “nostalgic fetishization of meat” only obscures the very real exploitation of animals occurring (“*Oryx and Crake*” 243). The “meet your meat”

movement has been great PR for meat-eating *in general*, allowing people to eat meat without feeling bad again, even if ninety-nine percent of the meat they are eating is far from the romanticized husbandry being shown in popular media.

Atwood's Evolving Narrative

Taking a step back, we see that building anxieties around eating animals pushed to the forefront by our system of industrialized farming have produced two divergent reactions: the search for nostalgic husbandry and slaughter and the attempt to use labs to circumvent the animal altogether. Both of these responses fail to fully resolve the problem of animal commodification. Nostalgic slaughter, while admirable for how it attempts to subvert the tragedies of industrial farming, fails because it still results in animals held captive and killed; because the realities rarely match the romanticized version promoted by popular writers like Michael Pollan (for animals and humans alike); because of its affiliation with wealth (those who can “afford to be picky” about where their meat comes from); and because it perpetuates demand for meat, ironically fueling the factory farm system it purports to resist. Lab-grown meat, somewhat of a “holy grail” for animal activists such as PETA (“PETA’s ‘In Vitro’ Chicken Contest”), is also reserved for a certain economic class, and it silently supports the belief that humans *need* to eat meat—it positions meat as something so necessary that it should be pursued at all costs, which fuels meat culture. It also still requires the use of biological material from animals, making it much less “guilt free” than advertised.

The emotions driving both New Carnivorism and lab-grown meat in our culture are drivers for the characters in *MaddAddam* as well. Their nostalgia and longing for “real meat” and ambivalence about “fake meat” are a window into current cultural trends and anxieties, making the trilogy a sharp and timely commentary that can spark much-needed discussions.

In fact, Atwood seems to have been quite attuned to changing attitudes about meat eating and animal commodification, and the progression of the trilogy has taken these changes into account. *Oryx and Crake* prompted a proliferation of critical commentary about humanity, animality, and meat after it was published in 2003. Because Snowman/Jimmy is the readers' Everyman, humanism prevails, and an anxiety that we, as a culture, are losing what it means to be human. Jovian Parry writes, "For the most part, *Oryx and Crake*, like most of Atwood's novels, falls squarely within a certain strain of modernist aesthetic that tends to valorize primal, savage relations with Nature and with animals" ("*Oryx and Crake*" 252). Many commentators seized on the brief mentions of Jimmy's humorless college roommate Bernice, "the God's Gardeners pyromaniac vegan" (OC 204) who burns Jimmy's sandals because they look like leather. Parry notes that "Throughout the novel, (human) vegetarians are ridiculed and derided" ("*Oryx and Crake*" 252). This is largely true, which makes the conceit and execution of *Year of the Flood* so interesting. A book exploring the God's Gardeners religion of cranky Bernice is probably not what most people were expecting to come after *Oryx and Crake*.

Year of the Flood's large cast of multidimensional vegetarian characters complicates some of the commentary *Oryx and Crake* spawned. Six years passed between the first and second books, which is plenty of time for a body of critical literature to build up and also for new cultural trends to arise that may have affected the direction of Atwood's writing. *Oryx and Crake*, published in 2003, was on the cusp of and in many ways predicted the New Carnivore movement and the reinvestment in meat culture. By 2009, when *Year of the Flood* came out, the movement was in full bloom—a perfect time for a keen-eyed observer like Atwood to offer an examination of what a wholesale rejection of that culture might look like, in a vegetarian, anti-capitalist ecocult. (As I will examine more in Chapter Three, 2013's *MaddAddam* may be on the

clasp of another cultural mindset shift, looking outside of the meat-eater/vegetarian dichotomy altogether.)

In *Year of the Flood*, the God's Gardeners are attempting to rethink animal commodification, but they are not unassailable moral heroes; Atwood pokes fun at them as she does with all characters in the series. The Gardeners' leader, Adam One, has many quite touching moments in his sermons, but they often cross over into the ridiculous. He argues that one can tell Jesus cared about animals because his disciples "were told to be fishers of men *instead of* being fishers of Fish, thus neutralizing two destroyers of Fish!" (YF 235). It is not just satire, though. Atwood's support for the ethics the God's Gardeners extoll (if not always the methods they employ) is clearly seen in her real-life activism and the way she talks about the Gardeners in interviews and readings. In the Acknowledgements section of *Year of the Flood* Atwood writes of the God's Gardeners hymns: "Anyone who wishes to use any of these hymns for amateur devotional or environmental purposes is more than welcome to do so" (YF 433). In an interview during her *Year of the Flood* tour, she mentioned that she was eating vegetarian, wryly joking that she had "themed her behavior" for the tour (Atwood, "The Year"). Atwood is one of the founding donors of Farm Forward, an organization fighting factory farming. She uses her impressive Twitter following to encourage environmental and animal rights activism. One recent post on Twitter linked to a fundraising campaign for a farm animal sanctuary with the comment, "The #pigoons approve: Help make it happen for Esther the Wonder Pig- Farm Sanctuary" (Atwood, "The #pigoons").

Year of the Flood is important culturally for representing characters not often seen in popular literature. It also shows how Judeo-Christian philosophy can be used to argue for radical environmentalism and a vegan diet. This is significant because of how commonly anti-

environmentalist rhetoric calls upon the idea that God gave humans the earth to use and animals to have dominion over. By focusing on a group of people resisting the system that is doing so much harm, *Year of the Flood* opens up the possibility of alternative ways of living.

Being open to alternative systems becomes ever more important as current US industrial practices become increasingly unsustainable. The impact of factory farming reaches far beyond questions of animal ethics. The system raises serious concerns about worker safety, consolidation of corporate power, public health, global hunger, and environmental degradation. In the United States alone, thirty-five thousand miles of rivers in twenty-two states are suffering pollution from the eighty-seven thousand pounds of excrement produced *per second* by farmed animals (Foer 174). And, applicable to the global warming crisis that drives catastrophe in *MaddAddam*, animal agriculture is currently the number one cause of climate change, “making a 40% greater contribution to global warming than all transportation in the world combined” (Foer 58).

The threat of a catastrophic event is ever-present, in real life and in fiction. In the *MaddAddam* trilogy, the corporate bio-sabotage that wipes out entire “supplies” of animals is a constant fear for the Compound scientists. From the bonfire of infected animal corpses in *Oryx and Crake*’s opening pages to the MaddAddamites’ dismantling a ChickieNob installation with a parasitic wasp, the threat of pandemic threads throughout the narrative, even before the big one that kills off the humans. One gets the sense that if Crake had not released his virus into the world, it would not have been long before another pandemic arose, with similar results. The God’s Gardeners are ridiculed for believing in the inevitable “waterless flood,” but cultural and environmental indicators support their belief. Recent H5N1, SARS, and H1N1 outbreaks demonstrated how easily a pathogen can jump from animal to human, and the animals farmed most, in our society and in *MaddAddam*, are the ones most likely to enable these outbreaks: pigs

and birds. “Six of the eight genetic segments of the (currently) most feared virus in the world” directly trace back to US factory farms (Foer 143). Seventy-five percent of new diseases affecting humans from 1999 to 2009 originated in animals or animal products (“Rising Number”). The WHO, OIE, and USDA cite factory farming as a primary risk factor for “disease entrance and/or dissemination” (Foer 143). Climate change facilitates the spread of countless devastating diseases, including malaria and cholera (McMichael, Woodruff, and Hales 860).

Because of the enormous scope of the factory farming system, the ethical considerations around eating meat today are vastly different from fifty or seventy-five years ago. The arguments for meat eating proposed by theorists like Plumwood and Haraway are, by their own admission, unworkable within the system that creates ninety-nine percent of the meat in the United States. If there is a future in which factory farming no longer exists in the United States, the feminist arguments for and against eating meat can be revisited. But as long as industrialized farming is the status quo, opting out of the system appears to be the most ethically tenable position from the perspective of animal rights, human rights, and environmental protection.

Jonathan Safran Foer writes, “The earth will eventually shake off factory farming like a dog shakes off fleas; the only question is whether we will get shaken off along with it” (264). The pre-pandemic world in *MaddAddam* and its subsequent destruction posit one sobering future that factory farming could bring: an environment so decimated that even the nominal agriculture of today cannot be supported; the increasing gaps between those who can afford “real food” and those who cannot; the continued genetic enhancements of farmed animals to turn them into little more than meat machines; and the intensified risk that the system will cause a massive outbreak. Perhaps the factory farming system is the “logical” conclusion to industrial society’s more

general treatment of animals as commodities. When animals become objects, we absolve ourselves of the need to think of them.

“6 p.m., walking: mural of tigers on building downtown. 6:30 p.m., reading to my niece: I pull out ten books and all are about animals.” Keeping notes of all animals and animal symbols I encountered during a day turned out to be an impossible task. *“7:30 p.m., magazine cover with photo of donkey and elephant, for an article on Democrats and Republicans. 8 p.m., a song by Grizzly Bear is on.”* Even when I am really paying attention, I can only begin to see the ways in which animals, real and symbolic, are woven into American culture. *“9 p.m., online: friends sharing photos of pets, articles about strange looking animals, and cat videos. And omelet recipes—almost forgot to count that.”*

It is clear that animals have, as Shukin says, both metaphorical and material currency. In a culture so saturated with animal symbols, and so reliant on the labor of animal bodies, how can we begin to think of animals as more than abstractions and objects of consumption? As I will argue in Chapter Two, locating animal agency—viewing animals as subjects instead of objects—is a place to begin.

CHAPTER 2: LOCATING ANIMAL AGENCY

Cassie

Cassie was not like other pigs. She looked like her Yorkshire parents, ate the same food, and grew to the same size. But unlike them, her salivary glands produced a phytase enzyme that helped her body break down the high phosphorus content of her cereal grain feed. Cassie was the founding EnviropigTM, the “first animal genetically modified in order to solve an environmental problem” (McHugh, “Real Artificial” 194). Enviropigs were developed at the University of Guelph in Canada, “created with a snippet of mouse DNA introduced into their chromosomes and engineered to produce low-phosphorus feces and reduce waste at large factory farms” (Schmidt). The high amount of phosphorus in modern pig feed, coupled with the density of animals on modern pig farms, leads to massive collections of high-phosphorus pig manure, which are dangerous for human health and harmful to the environment—one of the main causes of “fish kills” (“EnviropigTM”). Some farmers mix phytase with their pig feed to help neutralize the phosphorus, but it can get expensive. So University of Guelph researchers put the phytase into the pig.

The project passed initial reviews by Health Canada, but had more legislative maneuvering ahead before the genetically modified animals could be introduced into the food chain. Prior to reaching that point, however, Ontario Pork pulled the project’s funding and it folded. After several generations, Enviropig had “not managed to attract funding from a food company that would ultimately seek to commercialize the pigs, possibly because environmental benefit doesn’t necessarily translate into more profit” (Nickel “Death Knell”). In the end, not only did the pigs not make it onto farms, but in May 2012, the remaining ten pigs were euthanized, along with the project. A university spokesperson said it would “represent an

unacceptable and irresponsible risk for the university to allow these transgenic animals to be under anyone else's control" (Nickel "Rights Group"). Born in the lab, their fate was tied to its funding.

Even though Enviropig's creators clearly emphasized the environmental benefits of the modified pig, in its name as well as its marketing, it was not embraced by the green community. One news article covering the funding loss notes, "Environmentalists have cheered the setback for the Enviropig project" (Nickel "Rights Group"). In discussing ChickieNobs in Chapter One, I touched on the trouble with "designer ethics" when used to alter an animal itself rather than its problematic conditions. The Enviropig is a real-life example of this tension: is it a creative, responsible way to alleviate an environmental problem, or a high-tech Band-Aid that obscures the underlying issues, in this case the massive scale and density of industrial pig production and the indigestibility of cheap feed? The risk assessment summary conducted by the Canadian government emphasizes the unwillingness to address the problem systemically, stating baldly: "Potential environmental hazards associated with large scale non-transgenic swine production were not considered within the scope of this assessment" ("Risk Assessment Summary").

The Enviropig page on the University of Guelph website is still up. It has not been updated since 2010 (two years before the pigs were euthanized), and concludes with the cheery promise that "the technology is simple, if you know how to raise pigs, you know how to raise Enviropigs!" ("EnviropigTM").

Big Tent Agency

Of all the genetically engineered "meat animals" in *MaddAddam*, the kanga-lamb, mentioned only once, is the one whose creation seems to have taken into account more than capitalist motivations. The kanga-lamb is described as "a new Australian splice that combined

the placid character and high-protein yield of the sheep with the kangaroo's resistance to disease and absence of methane-producing ozone-destroying flatulence" (OC 292). Susan McHugh finds threads of agency here, arguing that the kanga-lamb leads to "seeing meat and animals together with humans as actors, in this case coming together (however nominally) to stave off the impending 'farmageddon'" ("Real Artificial" 194). Can the Enviropig be considered in the same light? Was Cassie an agent or only an object?

Attempting to define the terms *agency*, *subject*, *object*, and *personhood* is an effort that has spawned entire branches of study in philosophy, anthropology, political theory, and many other disciplines. Discussions of agency bring up a seemingly infinite list of questions, arguments, and possibilities far beyond the scope of this paper. These discussions are exceedingly important, but becoming bogged down by them can stifle exploration of agentic concepts in culture and literature by demanding agreement on definitions before exploration can begin. So for this paper, I ask the reader to join me in a thought experiment: when considering agency, let us start from the broadest view and see what can be learned from that epistemological position.

What if, rather than stingily and tentatively attempting to expand the moral community outward from humans, we began from the opposite direction? Recognizing that agency and subjectivity are traditionally defined by those in power, let us instead consider questions of agency through a widely inclusive lens. In the spirit of "innocent until proven guilty," let us try out "*agent* or *person* or *subject* until proven otherwise." What can we learn if we default to inclusivity, or what I like to call "big tent agency" (Franken)? If we allow ourselves to think, not of rules of exclusion, but of an extended moral community, with infinite agents interacting rhizomatically? (see Deleuze and Guatarri). If we open up discussions of agency not just to

animals but to whole ecosystems, technologies, and communities? If nothing else, this position shifts the center of power, destabilizing established hierarchies.

This inclusivity experiment is not to suggest that my analysis comes from a rudderless place. My examination of agency, personhood, and subjecthood in *MaddAddam* follows a poststructuralist feminist model and is inspired by theorists such as Bruno Latour and Donna Haraway. I reject humanist models as being too limiting and too focused on individualism and rationality. Intentionality is not a requirement for my concept of agency. I also reject the line of thinking in some feminist theory that emphasizes language, identity, and assertion of self as essential components of agency. Most of all, I reject the Cartesian Self, in which a human's consciousness is always wholly separate from the selves of Others, and the Cartesian Machine-Animal, which positions nonhuman animals as automata. My conception of agency celebrates resistance to oppression, but is not limited to it; the act of resisting is not a necessary characteristic of agency. I follow, however recklessly and irreverently, the spirit of Latour's actor-network theory, in which the alliances and relations between actors (human and nonhuman) create constantly-shifting sites of knowledge production.

Susan McHugh examines the "trend in literary analysis toward reading animals as animals instead of animals as people-metaphors," or symbols, or objects (*Animal Stories* 172). She calls this new positioning a "narrative ethology," one that "emphasizes embodied relations of agency and form" rather than shelving narratives as "political problems of representation" (*Animal Stories* 217). Although I extend agency beyond animals, they are my focus here. I argue that by taking animals seriously as subjects, in literature and in real life, we can begin to think through the ethical implications of nonhuman agency and move beyond seeing animals as tools, objects, or symbols.

The Gaze

MaddAddam continually calls upon “the gaze” to destabilize subject-object relations between humans and animals, or more broadly, between those in power and those considered the Other. Modern thought on the gaze as a concept traces back to Jacques Lacan, who argued that the awareness that one can be gazed upon takes away a degree of agency or autonomy. Michel Foucault wrote that knowing one is visible influences how one behaves. Laura Mulvey popularized the concept of the male gaze, which has since been reapplied to examine the post-colonial gaze. Central to all of these theories is the construction of power, the argument that the one who gazes is the subject, defining the worldview, and the one who is gazed upon is the object. That is why when the object returns the gaze, it is so powerful and destabilizing. It imputes agency.

In our urban, post-wilderness culture, stories about encounters with animals often revolve around the teller being *looked at* by the animal. These stories are easily found, and often sound like this: “[The bear] looked straight into my eyes’... the bear’s piercing look lingered in his memory” (Hess). Or this: “I saw the brightest, most piercing eyes I have ever seen. They shined like stars. A black fox stood in my way...Its gaze was disconcerting” (Louv). It is presented as an epiphany when that which we gaze upon gazes back at us.

John Berger writes about the animal gaze that “always its lack of common language, its silence, guarantees its distance, its distinctness, its exclusion, from and of man. Just because of this distinctness, however, an animal’s life, never to be confused with a man’s, can be seen to run parallel to his” (6). In *MaddAddam*, “animal’s life” is confused with man’s: the distinctness is muddied by human-animal hybrids, and the lack of common language is bridged by the Crakers, who can translate across the human-animal barrier.

MaddAddam's world, especially post-pandemic, is characterized by animals and nature asserting their agency. Whether it is the kudzu that seems to grow several feet each night, the infections that refuse to heal, or the pigeons digging up precious gardens, the "outside world" is no longer something to be visited on summer weekends or learned about through a documentary film. It is a constant actor that resists control. The narrative often employs the gaze to signify human anxieties about the "outside world" re/claiming subjecthood and about the unpredictability of newly created genetically engineered species. For example, glowing eyes are a feature of several of the genetically engineered animals that populate the post-pandemic world, including the Crakers. Toby mentions that "a bobkitten crossed in front of her, turning to stare with its lambent eyes" (YF 21). This phrase returns when Toby is speaking with three of the Craker women: "All three of them gaze at her with their lambent green eyes, as if she's twirling a piece of string and they are bored cats" (MA 100). Glowing eyes are an apt symbol for the returned gaze, one that alludes to the gaze being projected outward rather than passively received. The gaze, which is inherently defined by difference, plays an important role in *MaddAddam*, and the ways in which characters respond to it tells us much about how they conceptualize the boundaries of their community and how far they extend agency.

Jimmy's Shame

Philosopher Jacques Derrida famously wrote that when gazed upon by his cat while naked, he had trouble overcoming his embarrassment. Even though Derrida was considering an actual individual cat, his thoughts revolve largely around a philosophical animal Other. In this space, the animal gaze is valued for how it defines humans, and is not concerned with the animal itself: "As with every bottomless gaze, as with the eyes of the other, the gaze called animal offers to my sight the abyssal limit of the human" (Derrida, "The Animal" 381). Similarly,

MaddAddam's Jimmy largely uses the animal gaze as a mirror or tool for self-understanding. He reads into it a connotation of his uniqueness; he wants to be special and he thinks being looked at by the Other makes him special.

Jimmy views animals in a nostalgic, romanticized way and has trouble when the rapid changes of genetic engineering present him with scenarios that challenge his conception of animals. When he meets the CorpSeCorps-engineered dog-like “wolvogs” for the first time, “all were gazing at Jimmy with eyes of love, all were wagging their tails” and his “old longing for a pet came over him” (OC 205). But then Crake informs him that they are not dogs but wolvogs: “bred to deceive” (OC 205). Jimmy likes to think he knows what animals are thinking when they look at him. The wolvogs undermine this feeling. It seems especially like a betrayal because of dogs' long history as companion species to humans—eons of co-evolution disrupted by a few years in the lab. Ambivalence around genetically engineered animals is woven into Jimmy's childhood. He feels a connection with the pigeons in his father's lab but they make him uneasy because of their size and what he reads into their gaze: “the adults were slightly frightening, with their runny noses and tiny, white-lashed pink eyes. They glanced up at him as if they saw him, really saw him, and might have plans for him later” (OC 26).

For Jimmy, the animal gaze is often accompanied by a sense of shame or guilt, like Derrida's embarrassment under his cat's stare. He feels this shame when he thinks of himself in relation to the pigeons: “He was glad he didn't live in a pen, where he'd have to lie around in poop and pee. The pigeons had no toilets and did it anywhere; this caused him a vague sensation of shame. But he hadn't wet his bed for a long time, or he didn't think he had” (OC 26). Alice Kuzniar, writing about shame in human-dog relationships, argues for the power of “empathetic shame,” saying “we might more readily recognize an animal's distress than acknowledge our

sense of inadequacy” (Kuzniar 73). Jimmy’s simultaneous empathy with the pigeons and recollection of his own embarrassment about bedwetting speaks to this shared shame. Kuzniar also writes about shame as “isolation from community” (72), something that “separates one from others” (71), feelings that are absolutely central to Jimmy’s life. Beyond constructing the division between self and community, shame plays a larger role in defining—even creating—the self, as is evidenced in the layered meanings of the term “self-consciousness” (Kuzniar 71).

Jimmy’s connection with Oryx also starts with a gaze, linking her in Jimmy’s mind with many animal-Others in the text. Jimmy and Crake are watching child pornography, which for them is normally something so banal as to hardly merit interest. On this particular day, however, one of the girls in the video (Oryx) turns her gaze to the camera and that is when she becomes a real person to Jimmy, unlike the other children in the videos who Jimmy thinks of as “digital clones” (OC 90). “Oryx paused in her activities... Then she looked over her shoulder and right into the eyes of the viewer—right into Jimmy’s eyes, into the secret person inside him. *I see you*, that look said. *I see you watching. I know you. I know what you want*” (OC 90). Jimmy feels “burned by this look—eaten into as if by acid. She’d been so contemptuous of him... for the first time he’d felt that what they’d been doing was wrong. Before, it had always been entertainment, or else far beyond his control, but now he felt culpable” (OC 91). The act of being gazed upon changes Jimmy and makes him ashamed of his actions. Of course, Oryx is not actually looking at *him* but at every hypothetical viewer, but Jimmy, being Jimmy, claims the gaze for himself. When he meets Oryx as an adult, he first sees her via security camera as she teaches lessons to the Crakers inside Crake’s lab: “She turned into the camera and there it was again, that look, that stare, the stare that went right into him and saw him as he truly was” (OC 308). When he finally meets her face to face, “Gazing into those eyes, Jimmy has a moment of pure bliss, pure terror”

(OC 308). Each time Oryx comes into Jimmy's life she does so with a gaze, destabilizing Jimmy's position as subject and gazer.

For years, Jimmy has kept a printout of that "direct, contemptuous, knowing look" that "she'd given him" in the video, although of course her look had nothing to do with him in particular. He calls the printout "his own guilt, his own shame, his own desire" (OC 215). When he discovers that Crake has kept the image as well, and is using it as part of a path to a secret online meeting space for the MaddAddam group, he feels "ambushed" that Crake has "stolen" the picture. He thinks, "*That's mine! Give it back!*" followed by a rush of guilt in which he imagines he is "in a lineup; fingers pointed at him, faces scowled...Retribution was at hand" (OC 215). It recalls Jean-Paul Sartre's claim that "Shame is by nature *recognition*. I recognize that I *am* as the Other sees me" (Sartre 302, emphasis in original). In his shame about Oryx, Jimmy feels exposed, seen, ostracized, singled out. Because the gaze and looking are given so much weight in the trilogy, it is significant that Crake selects Oryx's eye as the portal into the MaddAddam space, where the idea for humanity's destruction first enters his mind.

Delving more deeply into Jimmy's relationship with Oryx adds dimension to the discussion of his trouble with animals and agency. Jimmy's affinity for animals centers on how they help *him* define *himself*. He is a tragic example of a Western individual trying to "know" the animal and get the animal to behave according to his narrative rather than being open to entering a space where species can meet and all have agency. Jimmy recalls the Levi-Strauss phrase that "animals are good to think with." This tendency to use the Other as a tool to define oneself is tangled up in patriarchy. Thus, it is not surprising that it shows itself in Jimmy's relationships with women as well. Even as a boy, Jimmy seeks to gain intimate knowledge of his girlfriends as a way to reflect him back to himself. An early, more innocuous example is how he reads Ren's

diary. It becomes more insidious in his relationship as an adult with Oryx. A poor Asian woman who grew up in sex slavery, Oryx is for Jimmy the perfect conduit for his desire to both know and save the Other.

In a text with few mentions of the world outside the United States, Oryx is an important voice, reminding us how women, children, and people of color are disproportionately affected by environmental crises. Everything is connected; Oryx's story reveals how climate change led to the children in her village being sold into sex slavery. The man who comes to buy children from the village "had been needed more and more often, because the weather had become so strange and could no longer be predicted—too much rain or not enough, too much wind, too much heat—and the crops were suffering" (OC 118). When Jimmy hears the story of this man, his reaction is "I'd like to kill this guy," to which Oryx responds, "Oh, Jimmy, you would like it better maybe if we all starved to death?" (OC 119). Jimmy's anger at a child sex trafficker is certainly understandable, but his (white) savior complex and his individually-focused worldview prevent him from seeing the larger picture of how the system he is part of created the conditions for this man to thrive in the first place. Oryx's view is much more nuanced.

As the story unfolds, the reader is led to question whether the child in the pornographic video is even Oryx at all. The text leaves open the possibility that Jimmy has condensed a few "exotic Others" who look like Oryx into one person, a glorified Other for him to fetishize. When adult Jimmy shows Oryx the printout he has so prized, she says, "I don't think this is me."

"It has to be!" said Jimmy. "Look! It's your eyes!"

"A lot of girls have eyes," she said. "A lot of girls did these things. Very many."

Then, seeing his disappointment, she said, "It might be me. Maybe it is. Would that make you happy Jimmy?"

"No," said Jimmy. Was that a lie? (OC 91)

Jimmy knows that his narrative of Oryx is not “true,” but/so he constantly pressures her for more information about her life before they met. He is obsessed with the most lurid and exploitative details of her past; the more he knows about the awful things (or what *he* thinks must have been awful), the more he can feel that he has saved her, that he is different to her than the other men in her life. “Looking at her,” the narrative-through-Jimmy relates, “you knew that a woman of such beauty, slightness, and one-time poverty must have led a difficult life, but that this life would not have consisted in scrubbing floors” (OC 115). When Jimmy brings this up, Oryx responds with “We didn’t have floors,” an example of how her actual experience continually erodes his story of her.

Atwood plays with the narrative convention of *focalization*, destabilizing the power positions of focalizer (Jimmy) and focalized object (Oryx). Although the reader receives the focalized narrative through Jimmy, Atwood uses humor to chide Jimmy for his fetishization of Oryx. This passage in which Jimmy imagines the poor village Oryx came from is a good example: “Of course they all probably smoked like maniacs when they could get the cigarettes: smoking dulled the edge. (He’d congratulated himself on this insight.)” (OC 116). Jimmy tries to confine Oryx to a stock character but Atwood never quite lets him. Instead, Oryx, even when she is going along with Jimmy’s narrative of her, is always subtly resisting, gently pushing back.

When Jimmy expresses his anger at a man who may or may not have kept Oryx (or someone Jimmy thinks is her) locked in a garage and used her for sex, Oryx says, “Why do you think he is bad?...He never did anything with me that you don’t do. Not nearly so many things!” Jimmy responds, “I don’t do them against your will” and Oryx laughs, “What is my will?” (OC 141). Jimmy wonders, “Where was her rage, how far down was it buried, what did *he* have to do to dig it up?” (OC 142, emphasis added). When grilling her about the child pornography, he

continually asks her, “Did they rape you?” but “She would never tell him. Why did this drive him so crazy?” (OC 144). He yearns for the power he thinks knowledge brings, but she parries and deflects his insistence, maintaining herself as subject and agent.

Further conflating Jimmy’s conceptions of women (especially non-Western women) and nonhuman animals, his descriptions of Oryx often include animal comparisons, especially connecting her to cats. He talks about her “beautiful cat’s face” (OC 255), “the face of a Siamese cat” (OC 115), watches her “kittenish tongue” (OC 90) and “pink cat’s tongue as she lick[s] her fingers” (OC 119). Since, as with animals, Jimmy treats Oryx as a lens through which to view himself, rather than an individual with her own narrative, it seems fitting that after the flood, Oryx’s memory is further abstracted into a sort of spirit guide. “‘Oryx,’ he says. ‘I know you’re there.’ He repeats the name. It’s not even her real name, which he’d never known anyway; it’s only a word. It’s a mantra” (OC 110). After her death (she is murdered by her other lover, Crake), she remains what she was to Jimmy in life: a mantra, a way for him to comfort himself, an abstraction, an Other.

Snowman/Jimmy is ill-equipped for the post-flood world in which animals are asserting agency and making choices on their own terms. Nature is rapidly and unrelentingly encroaching on his space, reclaiming the post-human world, or more accurately, claiming it in a new way. Post-pandemic, Snowman/Jimmy continues to seek the gaze of the Other in order to serve his needs. Thinking he is the only human left on earth, as he rants and roams, he often “feels he has a listener, someone unseen” (OC 46). He finds he “does have a listener: it’s a rakunk, a young one. He can see it now, its bright eyes peering out at him from under a bush. ‘Here girl, here girl,’ he says to it coaxingly” (OC 49). Rakunks are docile raccoon/skunk hybrids that were kept as pets before the plague. It is significant that Snowman addresses the creature as female; he has

long relied on women and animal Others to create his sense of self. “If he worked at it, if he really tried, he could probably tame one of those, and then he’d have someone to talk to” (OC 49). Snowman/Jimmy’s continual positioning of animals and women only in terms of how they can support or comfort *him* reinforces their position in his mind as non-subjects. The times when this dynamic is challenged, through words or gaze, are powerful destabilizing moments in the text.

Zeb and the Bear

There are many more examples of the gaze and of animals looking at humans in *MaddAddam*, but in the interest of scope I will mention just one more, involving the character of Zeb. Zeb has a leadership position within the God’s Gardeners, and much of the trilogy’s third book is devoted to telling his backstory. As a young man, Zeb survives a helicopter crash in the Alaskan wilderness. Stranded there, he survives by killing and eating a bear. Significant to my analysis of the gaze, he first sprays the bear’s eyes with pepper spray, wiping out the gaze both literally and symbolically, before killing the bear and eating its heart.

This incident is a main pillar of Zeb’s larger-than-life, legendary status among both the humans and Crakers. When Zeb returns to the Gardeners’ building after one of his many brawls or knife fights in the slums, the Gardener kids whisper and gossip reverently: “‘He ate a bear once,’ said Shackleton... The older boys had many such heroic tales of Zeb. ‘He said bears look just like a man when they’re skinned.’” (YF 109). Comparing bear and man heightens the taboo Gardeners already have about eating animals, making it an irresistible fascination for the kids. Zeb has other interactions with animals, but the incident with the bear is positioned as foundational to Zeb’s self. And indeed, large, hairy Zeb is often described in bearlike terms. He

sings in “his big Russian-bear voice” (YF 64) and looks like “Zeb the Smokey Bear” (MA 297). His code name in the resistance movement is “Spirit Bear.”

Zeb does not just consume the bear’s meat, but its identity, imagining that it imbues him with some sort of primal power. After eating the bear’s heart, he muses, “Having eaten the heart, could he now speak the language of bears?” (MA 81). Zeb’s constructed narrative of the event invokes the myth of sacrifice, which I discussed in Chapter One with animals raised for meat. The bear “congealed from the low shrubs flanking the river. It was not there and then it was there, and it reared up, startled, *offering itself*” (MA 80, emphasis added). The bear “congeals” from the landscape, language that emphasizes how the bear exists only for him, and may as well not have existed before this moment. That Zeb reads the situation as the bear “offering itself” underlines the way in which he romanticizes the interaction, making it part of his mythos.

He continues to build on the story of the bear’s sacrifice throughout his life. When he undergoes his drug-induced religious vigil with the Gardeners, he sees his “spirit animal...The bear. The one I killed and ate” (MA 331). Toby asks if it had a message for Zeb (“Her own spirit animal had been enigmatic”) and he replies, “Not exactly. But it gave me to understand that it was living on in me. It wasn’t even pissed with me. It seemed quite friendly.” But Zeb does seem to at least partially admit to his role in creating this idea, adding, “Amazing what happens when you fuck with your own neurons” (MA 331).

Zeb’s “inner bear” and ursine appearance are part of a larger naturalistic, heroic, wild man masculinity valorized in the third novel. This glorification of masculinity drives much of the third book, to the point where it pushes aside the female agency at the heart of *Year of the Flood*. Toby, a richly-drawn middle-aged female character who spends *Year of the Flood* navigating oppression and catastrophe with skill, falls in love with Zeb and spends much of *MaddAddam*

obsessing about where he is, when he will be back, if he is cheating on her, and if he thinks her butt is too flat. Zeb is a complex and admirable character in his own right, like Toby, but his role as the individualistic, heroic masculine overshadows the female characters around him.

Zeb's hyper-masculinity stands in not-so-subtle contrast to Jimmy's floundering in this area. Jimmy, though in a position of privilege, feels the shame of failing to be a "real man." Both Jimmy and the reader know that Jimmy could never kill a bear. He is brought to the brink of death by an infected cut on his foot, rescued just in the nick of time (by women). While Zeb thrills Toby and the Crakers with tales of his bear-eating exploits, poor Jimmy spends most of the third book unconscious, being cared for by doting ex-girlfriends. That is not to say that Zeb's masculinity is clear-cut and monolithic. It contains much of the Rooseveltian American individualism, but is also more than that. Zeb is a survivor of child abuse, a computer genius, and an environmental activist. But moving the narrative focus from Jimmy in the first book to Zeb in the third means masculinity is partially recovered. One way this happens is through the use of animals like the bear who appear in order to be conquered by Zeb and absorbed into his narrative. With Zeb, masculinity is created through the use of representational and real animals.

Acts of Resistance

Animal studies scholar Sally Borrell argues that *Oryx and Crake* is one of a handful of recent novels that "represent animals as more than victims in relation to humanist discourse: they emphasise animals' potential to disrupt that discourse by affecting the attitudes of individual humans or by resisting human endeavours by their own actions" (4). A good place to look for agency is at sites of resistance. Where are animals asserting themselves as more than commodities in a capitalist system? The bioterrorist acts of the MaddAddam group are one possible—but, as I will argue, problematic—site.

The MaddAddam group is a resistance movement spearheaded by Zeb that includes other of the more activist-minded Gardeners and some scientists from the Compounds. They are working on taking down the capitalist system through “bioform resistance” (YF 333) by sabotaging its infrastructure and income sources. Examples of their work include “the splice porcubeaver that was attacking the fan belts in cars, the bean weevil that was decimating Happicuppa coffee plantations, the asphalt-eating microbe that was melting highways” (YF 270), as well as a parasitic wasp that invades and wipes out ChickieNob installations and a new form of mouse addicted to insulation on electric wiring (OC 216). Although scholars such as Borrell position these acts as human-animal cooperation, it could be argued that the MaddAddamites are using animals as tools, just like the culture they are attacking. Intent matters here. The Compounds use animals as commodities, tools to get a profit. MaddAddam uses and engineers animals as tools of a sort, but their goal is to use these animals to make the world better for all animals. “Zeb figured if you could destroy the infrastructure,” one of the characters explains, “then the planet could repair itself. Before it was too late and everything went extinct” (YF 333). Donna Haraway argues that humans and lab animals can work together toward mutually beneficial goals (69-93). Perhaps the bioterrorism of MaddAddam can be thought of in that vein.

MaddAddam’s actions can also be read as an example of individual—or species—level thinking versus ecosystem-level thinking. Is it acceptable to instrumentalize some animals in order to save the environment for all? Borrell argues that the text “shows humans actively trying to ally themselves with animals, through technology, in the resistance of oppression” (159). In her view, “these modifications obviously entail the use of animals on MaddAddam’s part, but perhaps not one that Plumwood [see Chapter One] would consider instrumental, since human and animal ends are apparently complementary here” (174). She positions it as “the potential of

posthumanism to combat anthropocentric and political hegemony” that allows the humans involved to “promote the agency of animals rather than reduce them to resources” (174). Yet Zeb’s MaddAddamites show no indication that they are attempting to “listen” to what their nonhuman co-conspirators want. The humans have a goal and they design the nonhuman partners/tools they need to accomplish it. They set the path for the animals to follow.

That is why it is satisfying when the animals go off script and show their agency by not behaving in the way the humans planned. One of the MaddAddamites explains that some of the mice engineered to devour electric wiring “got confused. Attacked shoes. There were foot injuries” (YF 333). Saying they “got confused” is presumptuous; what he really means is that the tool did not perform as the human expected. It took agency.

There are other examples in the text of genetically modified beings resisting their creators by following paths other than those laid out for them. Huge “living rocks” help regulate humidity, but if it rains too hard “they’d been known to explode” (OC 200). Algae-infused towels puff up and inch across the bathroom floor during the night (OC 202). Glowing green rabbits escape the lab, which then prompts the creation of bobkittens, “introduced as a control, once the big green rabbits had become such a prolific and resistant pest” (OC 163). But then the bobkittens escape control as well: “small dogs went missing from backyards, babies from prams; short joggers were mauled” (OC 163). Examples like these demonstrate how animals have the potential to disrupt “humanist discourse” (Borrell 4). They challenge humans’ centrality in the world and call into question humanity’s control over even the beings they create.

Art and *Umwelt*

Another example of animal-human collaboration in *MaddAddam*, one that involves a less instrumentalized partnership, can be found in Amanda’s art. Amanda makes a brief appearance

in *Oryx and Crake* as a “long-haired brunette” that Jimmy “shacked up with” (241), and returns as a more central character in *Year of the Flood*. Her main artistic efforts are “Vulture Sculptures:” “The idea was to take a truckload of large dead animal parts to vacant fields or the parking lots of abandoned factories and arrange them in the shapes of words, wait until the vultures had descended and were tearing them apart, then photograph the whole scene from a helicopter” (OC 244). Like the MaddAddamites, Amanda is laying out a task and inducing animals to carry it out, but in a way that shows more respect for animal agency. Amanda is not engineering or creating any animals; she is inviting already-existing animals to be involved in the process.

The animal materials she uses are also significant. One of her projects uses cow bones, which are plentiful in the desert that used to be Wisconsin; farmers abandoned whole herds of cows to die because it was cheaper than trucking them to slaughter. She also uses “fish guts and toxic-spill-killed birds” (YF 57). The environmental degradation wrought by the out-of-control capitalist system created these bodies. Amanda calls attention to them, and honors them through her art.

Her work has strong anti-humanist undertones in the way that animals consume and erase words, those dominant symbols of human culture. Throughout the novels, writing is revered as a signifier of human cultural achievement, so the type of human effacement driving Amanda’s art holds special significance. Challenging the longevity of writing has a deeper meaning to Amanda as well; as an undocumented immigrant she uses it as a way to ally with nature in helping her disappear. When Amanda is living in the pleeblands as a kid, we see the first iterations of what her art will become. The day she meets her best friend Ren, Amanda writes her own name in syrup in an empty lot and watches ants consume it. “It’s neat,” she tells Ren. “You write things,

then they eat your writing. So you appear, then disappear. That way no one can find you” (YF 76).

In the terrifying post-pandemic landscape, Amanda’s background of working with dead matter and carrion birds in her art serves her well in adjusting and moving through the carnage to rescue Ren. Ren narrates, “There’d been about a million vultures. Some people would have been freaked out by them, but not Amanda—she’d worked with them in her art” (YF 322). Already viewing animals as having agency, Amanda can more quickly adjust to the post-pandemic world in which nonhuman actors challenge humanism and human survival.

Like Amanda, several real world contemporary artists have incorporated animals or animal matter into their art. Some engineer new beings, such as Eduardo Kac and his famous glowing green rabbit (Kac), who makes a cameo in *MaddAddam*. Doing so, these artists run the risk of treating animals not as collaborators, but as objects. Artists like Oron Catts and Ionat Zurr use animal material to create art that is a commentary on the development of genetically modified life. Examples include building “pig wings” by growing pig tissue over wing-shaped scaffolding (Catts and Zurr), and creating “real artificial” meat from genetic material taken from frogs (McHugh, “Real Artificial” 189). While the messages are interesting, their work obscures or fetishizes the real creatures from whom they take the biological material.

More akin to what Amanda is doing are artists like Aganetha Dyck, who cooperates with bees to create sculptures combining honeycomb and found human objects (Jobson), and Rivane Neuenschwander, whose cross-species collaborators include snails. Her piece *Carta Faminta* (*Starving Letters*) was created by snails eating through pieces of rice paper, “with some guidance by the artist” (Rothfuss and Carpenter). The result suggests “pages of a forgotten atlas” (Rothfuss and Carpenter), playing with the ideas of exploration into unknown territories evoked

by maps, guided not by colonizing humans but through the embodied experience of the snails. The “collaborations across species are also based necessarily on principles of chance and negotiation” (Rothfuss and Carpenter) since the human artist allows for the unexpected from her nonhuman partners.

Artist Ryuta Nakajima also celebrates the unexpected in his art created in partnership with cuttlefish. In one project, Nakajima places classic works of art under tanks of cuttlefish, who change their appearance to camouflage themselves against this backdrop, then he photographs the resulting tableau. Nakajima’s work is especially fascinating because it is a way of allowing the animal collaborator to actually show the viewer its *Umwelt*, which in a way is visually represented on and through its skin. *Umwelt* is a concept developed by biologist Jakob von Uexküll, and a helpful one for thinking about animal agency. In brief, it describes an organism’s subjective experience of the world. A human and a tick can experience the same moment, but they do so from different perceptual worlds based on the different sensory data their biology processes.

Nakajima explains how he was watching a documentary about cuttlefish and camouflage and realized “‘Hey, this is kind of what I’m doing as an artist.’ You know: Identifying environmental information and putting it out there as an artificial object. That was a weird, humbling experience for me” (Sandford). The cuttlefish claim agency during the artistic process, in part because Nakajima never knows how they are going to respond to a certain painting; one photo shows a cuttlefish “exhibiting a rare ‘fear response’ coloring, possibly a reaction to the Piet Mondrian print seen in the background” (Sandford). Nakajima’s process also respects his animal collaborators through its incorporation of scientific research. What started out as an artistic endeavor has introduced him to a scientific field working to learn more about cuttlefish

and their environments. Nakajima has even co-written scientific papers on cuttlefish. Nakajima and *MaddAddam*'s Amanda are both taking cues from their partner species, respecting their agency.

The Pigeons Take Charge

What would Atwood's story look like if experienced from another *Umwelt*? What if, for example, *MaddAddam* was written from the pigeons' point of view? The story opens on an enslaved race, held captive and used for experiments, bioslaves growing parts for their captors. The agency and intelligence of the protagonists appears not to be noticed by the oppressors, who eat pigeons deemed "no longer of use" in the laboratory. Then, the hubris of the captors catches up with them and, like the alien enslavers in *War of the Worlds*, a virus wipes them out. And then: escape, freedom, a new beginning. Feeling grass beneath the feet for the first time. Forming families, (re)defining culture. Facing new obstacles but adapting, and reaching a reconciliation of sorts with those who once enslaved them. A hopeful story.

From Snowman/Jimmy's point of view in *Oryx and Crake*, though, pigeons are a constant threat. As lab animals they were given human neocortex tissue, and it has made them cunning and intelligent. They plan ambushes, deploy scouts, and have long memories. They "were supposed to be tusk-free" but after the pandemic they quickly begin growing tusks; Jimmy thinks, "maybe they were reverting to type now they'd gone feral, a fast-forward process considering their rapid-maturity genes" (OC 38). Jimmy reads the development of tusks as atavistic, reverting *back* to an ancestral past, but the tusks can also be read as a visual symbol of pigeons evolving beyond the purpose envisioned for them by their creators.

In *Year of the Flood*, pigeons are still a threat to humans in the post-pandemic world, this time to Toby, but the depth of pigeons' culture begins to emerge. Perhaps these characteristics

were on display for Snowman to notice in *Oryx and Crake*, but he was not open to seeing them. Toby, better able to locate and allow for animal agency, sees them more clearly. The pigeons threaten Toby's survival by trampling her garden, and she chooses to shoot and kill a boar in an attempt to defend her food supply. Days later she sees:

fronds scattered about, on top of the boar's carcass and beside it. Fern fronds. Such ferns don't grow in the meadow. Some are old and dry and brown, some quite fresh. Also flowers. Are those rose petals, from the roses by the driveway?...Could the pigs have been having a funeral? Could they be bringing memorial bouquets? (YF 328)

Indeed, the reader discovers as the trilogy moves forward that the pigeons do have a complex culture all their own and are more intelligent than anyone would have believed.

It is likely that few readers predicted what an important role the pigeons would come to play in *MaddAddam*, the third book of the trilogy. The surviving human community and the ever-growing pigeon community start out at odds: the pigeons continue to stalk and threaten humans who leave their encampment and frequently break in to eat the food in their gardens. The humans, in turn, shoot and eat the pigeons who get too close. But when a group of Painballers starts a regular campaign of killing and eating pigeon piglets, the pigeons turn to the humans and Crakers for help.

The pigeons want to attack and kill the Painballers, but they have calculated that they need support from the humans' guns to be successful. They approach the human/Craker community to propose their plan. If the humans help them in battle, they will agree to a truce with their community. Crakers and pigeons can converse in methods not fully comprehended by the human characters. At first, Toby does not understand why the pigeons approach the Crakers if it is the humans' help they want. “‘Then why aren't they talking to us?’ says Toby. ‘Why are

they talking to you?’ Oh, she thinks. Of course. We’re too stupid, we don’t understand their languages” (MA 270). Humans are out of the loop, something they are not used to.

Before the battle, Toby again wonders what the pigeons are saying. “‘We’ll find out,’ says Zeb, ‘when they’re damn ready to tell us. We’re just the infantry as far as they’re concerned. Dumb as a stump, they must think, though we can work the sprayguns. But they’re the generals. I’d bet they’ve got their strategy all worked out” (MA 340). Zeb is right. The pigeons have thought things through at such a detailed level that they even remember to deputize a few adolescent pigeons to stay behind and watch over the flock of sheep while the humans are gone. They collect enough plants for the Crakers to eat before they stomp down the ground to better see threats in the distance.

Collaborating with the pigeons in such an intricate undertaking gives Toby an appreciation for their complicated intellects:

The Pigeons alongside tilt their heads to look up at their human allies from time to time, but their thoughts can only be guessed. Compared with them, humans on foot must seem like slowpokes. Are they irritated? Solicitous? Impatient? Glad of the artillery support? All of those, no doubt, since they have human brain tissue and can therefore juggle several contradictions at once. (MA 348)

This brings up a sticking point in the discussion of pigeons’ agency. One could argue that there are threads of human exceptionalism in the characters of the pigeons, since it is the human genetic material that allows them to carry out these actions. On the other hand, they are a strong example of an animal created as a commodity only to serve human needs that resisted its origins in ways its creators could not have foreseen. And even if human brain tissue instigates some of their behavior, the pigeons are most striking in the ways they are *not* like humans, most notably their non-hierarchical society. “Pigeons, as ‘team players,’ refute the Cartesian machine animal”

(Galbreath 5). The way in which pigeons cooperate with each other and with other species underlines their agency.

Agency in the Anthropocene

In 1995's *The Natural Contract*, Michel Serres wrote:

Nature acted as a reference point for ancient law and for modern science because it had no subject: objectivity in the legal sense, as in the scientific sense, emanated from a space without man, which did not depend on us and on which we depended *de jure* and *de facto*. Yet henceforth it depends so much on us that it is shaking and that we too are worried by this deviation from expected equilibria. We are disturbing the Earth and making it quake! Now it has a subject once again.
(86)

When humans enlist Enviropig Cassie in the fight to slow human-driven environmental collapse, when animals on factory farms are “bred for confinement,” or when whooping cranes are kept from extinction only by humans dressed in crane costumes, the divide between human subjects and objective nature breaks down. Revisiting the questions I posed about Enviropigs at the beginning of this chapter, can the project be held up as an example of a cross-species partnership and/or nonhuman agency? I remain unconvinced. Ultimately, the animals were being altered in order to perpetuate a system of high-density pig farming that is not in the pigs’ best interest. The Enviropig modifications may have indirectly benefited pigs by helping the environment, but changing the harsh realities of industrial agriculture would help more.

In my Introduction, I mentioned the Anthropocene, the new geologic era some scientists believe humans have initiated. Bruno Latour sees the Anthropocene as a time of “utter confusion between objects and subjects” (9), encompassing changes so fundamental as to redefine agency itself. He continues, “Far from trying to ‘reconcile’ or ‘combine’ nature and society, the task, the

crucial political task, is on the contrary to *distribute* agency as far and in as *differentiated* a way as possible” (17, emphasis in original). This distribution aligns with my “big tent” theory of agency with which I started this chapter. The Anthropocene can be conceptualized as a time of possibility, rather than just loss. But thinking differently about how we define subjects and objects is not just a philosophical exercise. Being at an environmental tipping point means there is very little wiggle room, and the choices a person makes on any given day have increasingly global consequences. Enlightenment-era hierarchical models of individual agency are ill-suited for these new challenges.

Instead, we must be open to a more decentralized worldview, one that recognizes interconnectedness and values collective and cooperative ways of being without forgetting our inability to fully understand another’s *Umwelt*. Chapter Three proposes some ways to begin.

CHAPTER 3: BECOMING-WITH ANIMAL

Kanzi

Kanzi Wamba has only published one peer-reviewed article in a scientific journal, but it was a groundbreaking one. The article, published in 2007 in the *Journal of Applied Animal Welfare Science*, argues that captive environments limit demonstrations of culture for large apes such as bonobos, leading humans to believe these cultures do not exist. It is titled “Welfare of Apes in Captive Environments: Comments On, and By, a Specific Group of Apes”—Kanzi and his fellow co-authors Panbanisha Wamba and Nyota Wamba are bonobos.

The article’s lead author is (human) Sue Savage-Rumbaugh. She has worked with bonobos over the course of decades to co-create a language they can share. The article states that because “humans view apes as mentally limited, some current captive environments may appear idyllic while offering only an illusion of appropriate care, derived from a simplistic view of what apes are, rather than what they might be. This perception of apes determines their handling, which determines their mental development, which perpetuates the prevailing perception” (Savage-Rumbaugh, et al. 7). Savage-Rumbaugh involved the bonobos as co-authors by posing a hypothesis and gathering their feedback on it through their shared language. The philosophy driving this work differs from the observation-based field biology that aims at as little contact as possible with those being observed. Savage-Rumbaugh may believe that in an ideal world the bonobos would be free, but she chooses to work within the complexities of captivity, allowing human and ape culture to shape each other. Through their work together, both Savage-Rumbaugh and the bonobos experience a dynamic state called “becoming.”

Becoming-Animal and Tragic Liminality

Philosophers Gilles Deleuze and Félix Guattari write about the difference between *being* and *becoming*. Being is a static state: divisions are well-defined, and entities can be sorted to either side of unmoving boundaries. Becoming is always about the dynamic process. There is room for change, for entities and situations to exist in fluid, hybrid states. One way in which Deleuze and Guattari think through the idea of becoming is by theorizing a state called “becoming-animal.” Becoming-animal does not depend on an end result or a completed transformation: “To become is not to progress or regress along a series” (Deleuze and Guattari 268). They continue, “Becoming produces nothing other than itself. We fall into a false alternative if we say that you either imitate or you are. What is real is the becoming itself...The becoming-animal of the human being is real even if the animal the human being becomes is not...a becoming lacks a subject distinct from itself” (Deleuze and Guattari 268). Literature scholar Sarah Dillon calls the identity of one who is becoming-animal “an identity in process, defined only in and through repeated moments of relationality—in this instance, with the animal other” (146). This joint becoming differs from Derrida’s “philosophical animal,” always seen across a gulf.

Becoming-animal is a state of possibility for some, and of anxiety for others. Much of the post-Darwinian West has never quite gotten comfortable with the concept of humans as “up from the apes” rather than “down from the angels.” This anxiety perpetuates the distancing of human from nonhuman. In *MaddAddam*’s pre-pandemic culture, the gulf between human and animal, site of so much policing and handwringing in our modern era, is brazenly transgressed. In the Compounds, human and nonhuman genetic material is combined for fun or profit and “playing God” is part of the job description. In the pleeblands, humans, house cats, and lab rats are just as

likely as any other protein source to be found in a fast food SecretBurger. On the Internet, human-animal pornography is so common Jimmy once refers to it as “erotic wallpaper” (OC 315). Where is all the outrage over the sanctity of human life, and the worry about crossing “unnatural” boundaries? It has been stifled by unchecked capitalism. Anyone who speaks up, as Jimmy’s mother does, is targeted for elimination by the (privatized) police force, the CorpSeCorps. This dysfunctional culture illustrates that just blurring the boundary between human and animal, *in itself*, does not lead to deeper understanding between species.

Growing up in this culture has left its mark on Jimmy. The ambivalence he has around human-animal relations before the pandemic, and his anxieties around becoming-animal after the pandemic, position him within what I call a “tragic liminality” (Franken) which allows him to move back and forth along the human/animal binary but not past it to a new conceptual model. This “tragic liminality” contrasts with a more “constructive liminality” displayed by other characters, such as Toby.

As it is traditionally thought of in terms of rituals, the liminal space is one to be moved through, with clearly defined preliminal and postliminal states. Jimmy’s experience of the world is one in which he feels continuously liminalized, unable to find a place within the dominant culture; yet, he is also unable to pass through the liminal space into a new state, as some other characters do more successfully. He is stuck in a liminal state in which he finds no comfort—stranded on the outside, a relic of the past struggling to fit in the new world.

From the very first page of *Oryx and Crake*, Atwood sets up Jimmy/Snowman’s liminality. As the book opens, it is dawn (between night and day); Snowman is awakening (between sleep and waking) on the shore (between land and sea), looking at the horizon (between ground and sky). This is in the post-plague world, when he thinks he is the only human left on

earth. Even his hallucinations are powerful symbols of how he is threatened by hybridity and transgressed boundaries: “beautiful demons...with flickering pink tongues,” mermaids who will lure him to sea to be eaten by sharks, creatures “with the heads and breasts of women and the talons of eagles who will swoop down on him, and he’ll open his arms to them, and that will be the end” (OC 11). Specters of the dangerous human-animal hybrids from his pre-pandemic life haunt him and threaten to take advantage of his attraction to them.

The post-pandemic name he has given himself—“Snowman” as in “Abominable Snowman”—invokes a creature he thinks of as “existing and not existing, flickering at the edges of blizzards, apelike man or manlike ape” (OC 7-8). This last phrase is particularly apt for the trilogy in general, which explores so deeply the space between human and animal, and for Jimmy in particular, whose uneasy cognitive navigation of the human-animal divide characterizes many defining moments in his life.

Jimmy’s first childhood memory is of attending with his father a bonfire incinerating a pile of animal corpses felled by an infectious disease. Several things about the experience confuse him. He is worried about the animals “because they were being burned and surely that would hurt them” (OC 18)—confusing death and life. When his father explains that it does not hurt because they are dead “like steaks and sausages,” he thinks “Steaks didn’t have heads” (OC 18)—confusing animals and meat. After the fire Jimmy has to walk through disinfectant and he worries that it will hurt the ducks that are painted on his boots. “He’d been told the ducks were only like pictures, they weren’t real and had no feelings, but he didn’t quite believe it” (OC 15)—confusing representations and reality. He asks his father why the animals had to be burned; his father explains that they had a disease, which “is like when you have a cough.” “If I have a cough, will I be burned up?” Jimmy asks (OC 19)—confusing self and other, as well as human

and nonhuman. He is trying to navigate the bewildering rules about how humans and animals are treated differently.

Jimmy's feelings about and for pigeons are deeply intertwined with his anxieties about the system he lives within and the way it devalues and commodifies life. When the adults joke about the pigeons being served in the cafeteria, "This would upset Jimmy; he was confused about who should be allowed to eat what. He didn't want to eat a pigeon, because he thought of the pigeons as creatures much like himself. Neither he nor they had a lot of say in what was going on" (OC 24). Jimmy's identification with the oppressed, captive, lab animals speaks to his inability to recognize his own privilege as an upper-class, able-bodied, heterosexual white male living in a gated scientific community. The tension between Jimmy's privileged position and his (perceived) inability to achieve power is core to his character. One reason he yearns to connect with animals is that he sees them as fellow outsiders, not recognizing his own complicity in the system that excludes them.

During a visit to the pigeons, whom Jimmy thinks of as "his animal pals" (OC 30), his father warns him not to fall into the pigeon pit, saying "They'll eat you up in a minute." "No they won't," said Jimmy. Because I'm their friend, he thought. Because I sing to them" (OC 26). In young Jimmy's mind, his feelings of affinity toward animals should create the same bond in their minds. (He finds the reality very different after the plague.) Although Jimmy's feelings of love toward animals are well-intended, they are still fetishizing and prescriptive. Jimmy wants to be special to the animals, often imagines being a savior to them, and he wants them to act the way he thinks they should.

Jimmy's compassion toward animals, individually and in general, sets him apart from the culture he lives in, and is one of the things that makes him feel so alienated and moves him into a

liminal space. Jimmy sees some old DVDs of Alex the parrot, famous from Irene Pepperberg's avian language experiments, and turns him into an imaginary friend. He calls other kids at school "cork-nut," a term Alex made up, thinking "No one but him and Alex the parrot knew exactly what cork-nut meant" (OC 59). This is a mediated image as Jimmy's relationship, of course, is with the *idea* of Alex rather than the animal himself, who is long dead. He uses the idea of Alex as a way to comfort himself—"On the worst nights he'd call up Alex the parrot" (OC 260)—and thinks that if "Alex the parrot were his, they'd be friends, they'd be brothers" (OC 261). Like many other parts of Jimmy's life, this relationship is a simulation, but Jimmy's tragic liminality and hesitance to see agency in others leads him to experience simulated and real relationships in similar ways.

Jimmy's actual best friend is his pet rakunk (a raccoon/skunk splice his father brought home from the lab) he names Killer. The first time they meet, "it licked Jimmy's fingers, and he fell in love with it" (OC 51). Soon, "His secret best friend was Killer. Pathetic, that the only person he could really talk to was a rakunk" (OC 59). The use of the word "person" here is significant, though any personhood granted is always on Jimmy's terms. Killer also becomes a sort of moral compass for Jimmy. When he does things at school he is not sure are right, he asks, "Was that out of line, Killer?...Was that too vile?" and "Killer would lick his nose. She always forgave him" (OC 60). Of course, we do not know what Killer was thinking. "She always forgave him" is how Jimmy reads the situation, and it seems unlikely that Killer thinks in that way.

Becoming-animal comes to be much more embodied and immediate for Snowman/Jimmy after the plague, and he finds it a terrifying and lonely place. He envies the nonhumans, from Craker to minnow, who seem to take the new world much more easily in stride. He watches birds

“with resentment: everything is fine with them, not a care in the world. Eat, fuck, poop, screech, that’s all they do” (OC 148). But he also worries he is becoming them. He uses overwhelmingly animalistic language to describe himself—he “reeks like a walrus” (OC 7) and “laughs like a hyena” (OC 10)—and imagines he is devolving into some ancestral past.

The Crakers, especially, make Snowman feel vestigial and beastly. As *Oryx and Crake* opens, Snowman has moved into the trees to live, symbolically reversing the evolution of *homo sapiens* who moved from tree to land. Snowman feels most alienated from the Crakers when experiencing what he calls his “beastly appetites” (OC 101): his desire for meat and sex. When he is eating a fish in front of the Crakers, he speculates, “Perhaps it’s like hearing a lion gorge itself, at the zoo” (OC 101). When he imagines trying to join one of the Crakers’ matings, he “can imagine the dismay—as if an orang-utang had crashed a formal waltzfest and started groping some sparkly pastel princess” (OC 169). Snowman has become the subhuman, the animal, and the human-animal hybrid Crakers represent a new, more pure humanity.

The realm of becoming-animal for Snowman is not one of possibility, but of shame. He does not think he was particularly successful at being a human in the pre-flood world, and now he is failing at being an animal, too. Thus the liminal space of becoming-animal is tragic for him.

Becoming-With Animal and Constructive Liminality

All of the human survivors are dealing with this liminality at some level, of course, but Jimmy seems to have the hardest time with it. There is almost not a space for him in the new multi-species community-building during *MaddAddam*, and indeed, perhaps as a symptom of this, he is actually unconscious for much of the final book. Unconsciousness is its own kind of liminal state; the Crakers talk about it as traveling. When he is discussed, as the Crakers and humans begin to merge cultures, he is referred to in their co-created language as “Snowman-the-

Jimmy,” a moniker that signals how he is stuck between two worlds and unable to move into a new community-based world, as some of the other humans are.

For example, Toby’s conceptions of animals are, on the whole, less paternalistic and appropriative than Jimmy’s, and more fluid and open to change. Toby grew up lower class, largely in the pleeblands, whereas Jimmy was raised in the Compounds. She then spent years in the God’s Gardeners environmental religion, in which respect for animals is a—perhaps *the*—central tenant. Throughout her storyline, Toby explores a complicated relationship with animals, but/and shows more awareness of animal agency than Jimmy. This allows her to experience liminality in a much more constructive way, and to explore a space that is more akin to what Donna Haraway calls “becoming-*with*” animal.

While Jimmy often assumes he knows what animals are thinking, Toby allows animals to have inner lives beyond her understanding, something that is clear from the opening page of *Year of the Flood*, when Toby is first introduced. She hears sparrows and thinks, “there’s no longer any sound of traffic to drown them out. Do they notice that quietness, the absence of motors? If so, are they happier? Toby has no idea. Unlike some of the other Gardeners—the more wild-eyed or possibly overdosed ones—she has never been under the illusion that she can converse with birds” (YF 3). Later, when “[t]iny iridescent moths are shimmering around their heads,” Toby does not think “I bet we smell like ____ to them,” as Jimmy might, but rather she simply wonders, “What do we smell like to them?” (MA 106). Toby often carries an awareness of her unimportance to animals, especially wildlife. “Mourning dove, robin, crow, bluejay, bullfrog. Toby says their names, but these names mean nothing to them” (YF 349). She acknowledges a world full of life that has nothing to do with humans.

Atwood employs some interesting symbolism in regard to Toby's human-animal liminality by twice employing her as a "furzooter," someone who wears an animal costume and walks the street handing out advertisements. In her costume, Toby is repeatedly attacked by sexual fetishists. She experiences these attacks through animal skin and sees them through animal eyes in a way, although the skin is synthetic and the eyes are plastic. Toby lives above a shop that sells the skins of endangered animals, and leaves her job as a furzooter partly because "it was distasteful dressing up as bears and tigers and lions and other endangered species she could hear being slaughtered on the floor below her" (YF 31). Marginalized persons are often more perceptive of others who are being abused by their society. Toby's gender and economic status in a stratified society likely make her more attuned to how the whole system is connected to oppress the Other. She sees the link between the commodification of animals in advertising and the slaughter of fetishized endangered species. Conversely, Jimmy, though he feels powerless, is still the recipient of considerable privilege, which limits his perspective.

Toby's poverty leads her to sell first her hair then her eggs, and traps her in a fast food job where she is regularly raped and abused by her boss Blanco. The inequalities of her culture are embodied realities for her beyond just a furzooter costume. Toby further embodies the human-animal liminal space when she is forced to acquire a new identity to escape Blanco. This involves a hair transplant, done in her society's usual way, with human hair grown on a "Mo' Hair" sheep engineered for this purpose. After the transplant, and especially after the plague, this hybrid hair (which Toby thinks "smells of mutton" [YF 17]) often leads Toby into liminal moments of bodily intimacy with animals. Cats are drawn to it—"When she woke in the morning she was likely to find one of them sitting on her pillow, licking her hair and purring" (YF 262)—as are Mo'Hairs. When living with the MaddAddamite community that forms post-

flood, she often wakes to find one of the Mo'Hairs from their flock licking her leg or standing near her. At first she thinks they want the salt from her skin, but then she decides it is "the faint smell of lanolin. It thought she was a relative" (MA 30). Toby maintains a sense of humor about it, and an acceptance of her animality that Jimmy is never able to reach: "Just as long as I don't get jumped by one of the rams, she thinks. She'll have to watch herself for signs of sheepishness" (MA 30).

Touch and physical intimacy are also integral to Toby's relationships with bees. She is the beekeeper both with the God's Gardeners and when she starts a new hive in the post-pandemic MaddAddamite community. Toby often mentions the feeling of the bees landing on her as she gathers honey. She craves a relationship with bees the same way Jimmy longs for a pet and loves Killer, but is more aware of how she projects her own thoughts onto them. Thinking about her Gardener bee community after the flood, she muses:

The bees had to be spoken to and persuaded, not to mention temporarily gassed, and sometimes they'd sting, but in her memory the whole experience is one of unblemished happiness. She knows she's deceiving herself about that, but she prefers to deceive herself. She desperately needs to believe that such pure joy is still possible. (YF 96)

Her reminiscence contains ambivalence, but a recognized one. She knows it was likely the gassing more than the persuasive speech that allowed her to collect honey, but she is able to hold that knowledge in tandem with what she calls "the euphoria of bee handling" (MA 213). It is significant that Toby feels the closest bond with a community or group of animals rather than an individual (like with Jimmy and Killer). It is a nod to the group selfhood and cooperation that stand as challenges to destructive individualism throughout the trilogy.

Toby has three dreams and two visions that we are party to. Animals star in all of them, as symbols and messengers but always maintaining a self distinct from Toby. One dream,

featuring piglets, follows an intense vigil in which the pigoon sow whose mate Toby killed may have visited her. In the morning, she turns down the pigoon-meat breakfast that has become the MaddAddamite community's standard fare. The question of what and whom we eat is an emotional one, and for Toby (as for many people) meat eating has ties to her past that make it a highly-charged space for her. She also has a layer of complexity added by her changing views of nonhuman personhood in the post-flood world. When Toby arrives at the MaddAddamites' home base, she helps them butcher some wolvogs they have just killed. "Toby's hands remember how to do this from long ago. The smell is the same too. A childhood smell... Toby feels a little sick. But she also feels hungry" (YF 393). Toby's experiences with animals, both before and during her Gardener days, bring her guilt at the thought of eating meat, but these feelings are butting up against a nostalgia for her childhood and parents in which meat was a comforting food.

We see this in another scene in which Toby smells meat cooking, "something that came close to the aroma of the bone-stock soup her mother used to make. Though she was ashamed of herself, it made her hungry. Hungry, and also sad. Maybe sadness was a kind of hunger, she thought. Maybe the two went together" (YF 262). This wistfulness recalls the stories Jonathan Safran Foer tells in *Eating Animals* about how hard it was to decide whether to deny his son the experience of tasting his grandmother's chicken recipe, or to serve turkey at Thanksgiving. All of his rational thoughts and research into factory farming steer him away from meat, but the emotion around family and tradition make the decisions much more complicated.

Toby's relationships with animals are multifaceted, messy, and often confusing. Donna Haraway would see this as a good thing. Haraway writes about "contact zones" (4) among a "web of interspecies dependencies" (11). She finds "becoming with" to be "a much richer web to inhabit than any of the posthumanisms on display after (or in reference to) the ever-deferred

demise of man” (16-17). Becoming-animal puts the focus on the experience of the one doing the becoming, eliding what becoming-animal might be like for the animal itself. It is a constructive space, and a way to reconceptualize humanism, but by focusing on the one becoming, it reinforces a divide between that “becomer” and the animal Other. Becoming-with animal, however, connotes a constantly-shifting, cooperative becoming between multiple beings. The term itself necessitates more than one subject or actor.

Symbiosis and Personhood

In some ways, the idea of the individual actor is a myth to begin with. Ninety percent of the cells in a human’s body are not human, are Other (Hird 37). These bacteria and other microorganisms not only make our existence possible, they influence our thoughts and behaviors as well (Cryan and Dinan). We are all communities. Lynn Margulis and Dorion Sagan argue that scientific evidence increasingly suggests a cooperative model of evolution rather than a competitive one, or in other words, that “Life did not take over the globe by combat, but by networking” (*Slanted Truths* 78). They explain that the “creative force of symbiosis produced eukaryotic cells from bacteria. Hence all larger organisms—protists, fungi, animals, and plants—originated symbiogenetically” and that “Symbiosis still is everywhere” (*Acquiring Genomes* 55-56). The literal truth of symbiosis and its helpfulness as a metaphor ground my analysis of the community seen in the last pages of *MaddAddam*.

In that community, a type of symbiotic selfhood exists alongside individual selfhood. The health of the communal organism is more meaningful to this new multi-species community than an ethics of individual justice. Humans, Crakers, pigeons, human-Craker hybrids, Mo’Hairs, bees, and plants are engaged in a continuous becoming-with. It is chaotic and complicated, with no clear rules. The cooperative or symbiotic model in *MaddAddam* comes through, in part, by

how personhood is granted to nonhumans, and how *person* and *human* become separate categories.

We get a glimpse of this new moral territory after Toby kills her rapist Blanco. He is on the brink of death when she finds him anyway, but she poisons him with mushrooms to speed his departure. “Silently she says the words of apology and release, the same as she would for a beetle” (YF 381). Life is to be respected, whether human or beetle, but sometimes it is necessary to kill to protect her community. And increasingly, that community is not just human. In fact, the biggest threat to her multi-species community are the violent human “Painballer” criminals, of which Blanco was just one. Atwood calls Painballers “*dehumanized* prisoners of the Corps who have ruthlessly eliminated the other combatants in the Painball arena” (MA xv, emphasis added). That word—*dehumanized*—is employed with intention. What does it take to remove the humanity from someone who once had it, to de-human-ize him? What, exactly, is taken away to move him from one category (human) to another (de-human, not-human, formerly-human)? What, if anything, is added in its place? Discovering what occurs during dehumanization can lead to deeper understanding of the states called *human* and *nonhuman* and how the states of *human* and *person* diverge in the novels.

In the *MaddAddam* trilogy, it seems like violence is a big part of this conversation. The Painballers are ruthlessly violent. But humanity as a species is portrayed as violent. Violence, or more precisely, the *capacity* for violence, is one of the qualities that the human characters reference as something that differentiates them from the Crakers. That is why when the pigeons want to neutralize the threat of the Painballers, they enlist the humans in the battle. As translated through the Crakers, “They know how you kill, by making holes. And then blood comes out. They want you to make such holes in the three bad men. With blood” (MA 270). But violence is

not solely a human quality. The pigeons are the ones to call for the Painballers' death, which is part violence, part justice, part self defense. And of course violence is a part of nature, "red in tooth and claw" and all. I argue, however, that there is significant difference between *nonhuman* and *dehumanized*. The word *humanity* can mean "the species *homo sapiens*," but it can also mean *humanitarianism*, which connotes kindness, empathy, charity, and benevolence. So when I say that the dehumanized Painballers are "ruthlessly violent," maybe it is the ruthlessness and not the violence that should be emphasized. Maybe what is taken away when someone is dehumanized is the capacity for compassion.

Accordingly, for the community that populates the end of *MaddAddam*, more important than humanness is personhood. Though they are biologically human, the Painballers may no longer be "people." Personhood and humanness become more and more distinct from each other as the multi-species community coalesces. In one scene, "Everyone's talking, or all the human people are" (MA 47), clearly meaning there are nonhuman people as well. After the battle between the Painballers and the human-pigeon force, the community finds themselves with two Painballer captives and the need to decide their fate. Among the humans, there is some talk of mercy and rehabilitation, but the overwhelming opinion is that the Painballers must be eliminated. To defend the community, they are deemed killable, in part because they are not seen as having personhood. In this way it could be considered an example of what Derrida calls a "noncriminal putting to death" ("Eating Well" 278), a phrase he uses to describe how killing animals (and animalized humans) can be cognitively separated from murder.

During the deliberation, one human character says, "Who cares what we call them...so long as it's not *people*" (MA 368). And when it is discovered that a few of the human women are pregnant, the humans in the community are much more bothered at the prospect of them giving

birth to human-Painballer children than human-Craker children. Zeb jokes darkly that if Amanda's baby is from a Painballer, "we'd have to drown it like a kitten" (MA 218). Ren says of the possible Painballer offspring, "a child with such warped genes would be a monster" (MA 369). The biologically human Painballers are seen as having "warped genes" while the genetically engineered human-animal hybrid Crakers are not.

The most striking aspect of the Painballer "trial," though, is that humans are not making the decision alone; pigeons serve on the makeshift jury that decides the fate of the captives. It is fitting, as the pigeon community suffered greatly at the hands of the Painballers, and they were the ones who initiated and planned the battle. The pigeons vote collectively (but through a leader), while the humans cast individual votes, a distinction that illustrates how two groups are beginning to work symbiotically, to become-with, while retaining parts of their own cultures. The pigeons vote for execution, but as a Craker translates, "they will not eat those ones. They do not want those ones to be part of them" (MA 369). Just as the humans are appalled at mixing with the Painballers through pregnancy, the pigeons do not wish to incorporate them through consumption. Returning to the metaphor of symbiosis, the communal organism is expelling the Painballers as the body expels a virus that threatens the health of the somatic community.

The Crakers' views of personhood can be teased out by noting where different creatures fit within their mythology. In this mythology, partially taught to them by Oryx and Jimmy but also added to by the Crakers themselves, humans and Crakers are "Children of Crake" and animals are "Children of Oryx." When they hear a story about a creature they have not learned about before (a bear), they do not instinctively know whether to assign it to the category Children of Crake or Children of Oryx. In other words, their logic is not that any non-Craker being is by default an "animal." Toby has to tell them, "Crake is not in charge of bears. Oryx is

in charge of bears” (MA 85). And after speaking with the pigeons, one Craker tells Toby, “They are Children of Oryx and Children of Crake, both” (MA 268). Derrida writes that “*Animal* is a word that men have given themselves the right to give” (“The Animal” 400, emphasis in original). Human-animal hybrids like the pigeons (and the Crakers) undermine the concept of humans as a monolithic, defined entity separate from and above all other living beings, who are homogenized into one group called “animal.”

Though group- and community-focused solutions are emphasized, individual selfhood is still present, of course. People (of all species) have names, have their own desires and thoughts, and make their own decisions. The pigeon who dies during the battle with the Painballers is remembered by name in the nightly stories Toby tells the Crakers. But individual survival is not the highest goal. Atwood could have ended the story on the bittersweet but narratively satisfying note of the community having defeated the Painballers in battle and having made it back to the comfort of their new community, where new babies will soon be born, carrying the promise of a more peaceful future. But instead, we are told that the community sees a cook fire in the distance. Is it more dangerous Painballers? Zeb and two others go to investigate and never return, and then Toby goes into the woods, likely ending her own life. (Toby does bring her gun with her when she leaves, which makes her implied demise more ambiguous, but maybe ambiguous loss carries its own narrative disruption.) In the battle with the Painballers, Jimmy leaps in front of a gun to save Toby’s life, ending his own. To what end were those heroics with Toby fading out so soon afterwards, and so unceremoniously? The fact is, though its characters perform heroic feats, *MaddAddam* is not a story of heroes. Though humans survive, it is not a story about humanity.

Atwood accentuates this point by having the final chapter not narrated by humans at all, but by one of the Crakers, a young man named Blackbeard. Blackbeard has learned how to write from Toby, and after she is gone he takes over the task of recording the daily happenings in her journal. It is through Blackbeard's writing that we learn of the birth of the babies to human mothers: none are human; all are human-Craker hybrids. The trilogy's story is longer than that of the humans in it, throwing into question whether it was ever their story to begin with.

Though Blackbeard's writing makes room for nonhuman characters, however, it still relies on humanism. The act of writing, of recording a history, is an essentially humanistic task. It serves to calm the anxiety of a world without us: the future may be all Craker-human babies and pigoons, but at least our story has been recorded and we have ensured that those who come after us will be able to read it. Jimmy/Snowman, the trilogy's standard-bearer of tragic humanism, clings to human language after the flood. "‘Hang on to the words,’ he tells himself... When they're gone out of his head, these words, they'll be gone, everywhere, forever. As if they had never been" (OC 68). Arguing with Crake back in college about the importance of art, Jimmy says, "When any civilization is dust and ashes... art is all that's left over. Images, words, music. Imaginative structures. Meaning—human meaning, that is—is defined by them" (OC 167). Snowman yearns for paper and pen after the flood, to record his days like "castaways on desert islands," but "even a castaway assumes a future reader" (OC 41) and he thinks he is the last human on earth. So he has to settle for using the Crakers as vessels to carry on his story, enjoying that "These people were like blank pages, he could write whatever he wanted on them" (OC 349).

After Toby first teaches Blackbeard what writing is, almost offhandedly, she has a moment of panic: "Now what have I done? she thinks. What can of worms have I

opened?...What comes next? Rules, dogmas, laws? The Testament of Crake? How soon before there are ancient texts they feel they have to obey but have forgotten how to interpret? Have I ruined them?" (MA 204). She worries she has spoiled this harmonious race, somehow infected them with a kernel of the humanity that necessitated their existence in the first place. But of course, we have no way of knowing how Crakers would have "naturally" behaved, without the interference of humans. Would they still have developed a mythology and an oral history to pass on to their young? Would they eventually have invented written language? It is often remarked upon that Crakers do things Crake did not "program them" to do, or that he specifically tried to program them *not* to do. So there is no telling how they would have evolved in a vacuum. And, significantly, this question possibly relies on a false premise to begin with. Haraway would remind us that there is no essential "nature," only "natureculture." We are all connected and constantly influencing all others on the web in the process of becoming-with.

A signifier of becoming-with taking place can be found in how language adapts to the multi-species context. Each species has the language it uses with others of its species, but there is a wonderful changeability to the new dialects co-created in the multi-species community. The humans and the Crakers both speak English, but different versions of it. So Toby says things to Blackbeard like "You are not the friend of those who turn you into a smelly bone" (MA 268) and both parties understand it. The Crakers are able to talk to pigeons (and possibly other animals) via a high-pitched singing. Singing is one thing Crake tried very hard to deprogram in the Crakers, so it is particularly satisfying that this characteristic facilitates a species enmeshment that goes against Crake's narrative. And of course the practices of shepherding and beekeeping, central to the MaddAddamite community, carry their own intimacies and languages.

Part of becoming-with in our own lives is recognizing how nonhuman animals shape our behavior, language, and thoughts. I have a unique lexicon of clicks, tsks, whistles, snaps, and claps I employ when attempting to communicate something to my cats, such as “come here” or “please stop doing that.” There are subtle differences in the sounds I use with one cat and those I use with the other. It is not a lexicon I consciously developed. Rather, it evolved over time as I shared a space and routine with my cats. They dictated its creation; the sounds I use are the ones that I learned (consciously or unconsciously) that they respond to. Likewise, they have a language they use with me, made up of vocalizations, gestures, and touches that they have learned elicit the response from me they want. This shared language grew out of deep engagement with each other’s lives as companion species.

Recognizing animal agency in small instances such as communicating with pets can encourage an openness to seeing cross-species intra-actions on a larger scale. Experiencing how individual pets both adapt to and influence the world around them can help us see agency in the ways in which species and ecosystems also adjust. As human culture changes and adapts to new technologies, why do people expect animals, especially non-domesticated ones, to remain fixed in time? Jon Mooallem writes about the odd disappointment some whooping crane conservationists feel when this quintessential wild bird they have worked to save chooses to spend its time, say, outside an ethanol plant or behind a Walmart. One of these conservationists says, “who wants to see whoopers wandering around a parking lot eating French fries? I certainly don’t” (Mooallem 257). People want these “wild animals” (whatever that means) to retain a certain purity, to be “anachronisms, to live in an avian version of Colonial Williamsburg, by the code of their ancestors, and without whatever tools the modern world might provide for them” (Mooallem 257). Animals are not supposed to deviate from our script.

Starting in the 1990s, crows began using cars on city streets to crack open walnuts. They drop them at crosswalks during red lights, then retreat to the curb to wait with the pedestrians while the cars pass and crack open the nuts. When the light changes again and the pedestrians start crossing, the crows head into the street to gather the cracked nuts (Davies). Humans did not teach crows how to do this. Rather, it demonstrates a type of symbiosis, with nonhumans initiating their own becomings, taking advantage of the “tools of the modern world,” and adapting new behaviors as natureculture changes.

These crows demonstrate how the web of symbiosis is not just a sharing of space, but something that also extends in time and encompasses non-living entities such as cars and cities. Environmental philosopher Timothy Morton refers to this as “the mesh.” He reminds us that life forms “are made up of other life forms (the theory of symbiosis). And life forms derive from other life forms (evolution). It is so simple, and yet so profound” (“Thinking Ecology” 267). In *MaddAddam*, just as humans have changed and been changed by the passage of time and interactions with others, so have animals and ecosystems.

To varying degrees, the humans in the MaddAddamite community have begun to embrace a more symbiotic ethos, with human beings as part of, rather than apart from, the web of life or the mesh. They conceptualize hybrid states of being, accept radical difference, and extend personhood beyond humans. Though humanism and human exceptionalism are still drivers in the post-pandemic society, other cultural shifts, especially the valuing of community over individualism, suggest ethical frameworks that can be applied to our current culture’s troubled relationships with nonhuman animals.

In his review of *MaddAddam* in *Nature*, Paul McEuan writes of these multifaceted connections:

The secret to a new beginning for Toby, Zeb and the Crakers lies in forging deep links between the experiences of the humans and the Crakers, as well as the Mo'Hairs, bees and even Pigoons. This is how they start the world anew: as a process of weaving different languages and understandings of the world into a unified tapestry. Atwood shows us that what is missing in the fast-evolving technological world is a constant awareness of the link between the iPad and the exploited worker in China, or the hamburger on the plate and the factory-farmed cow. (399)

Within the mesh, not all becomings are as high profile or easy to see as when Sue Savage-Rumbaugh co-authors a journal article with bonobos. Becoming-with in *MaddAddam*, as in our world, is not just a state between humans and animals, but between animals and other animals, between and among all life. It is decentralized and rhizomatic. At all times, there are myriad becomings happening without human action or knowledge. The becoming-with among the Crakers and pigoons and bees, or that among the rabbits and bobkittens in the unseen wild, or among a pigoon and its gut microflora—all are important. We must keep these unseen becomings in mind while also seeking a deeper understanding of the connections that *do* involve us. In looking for these links, we can take lessons from *MaddAddam*'s fictional world and use them to live with more awareness in our own.

CONCLUSION: A DIFFERENT KIND OF WORD

Atwood once referred to *Oryx and Crake* as “cheering in the same way *A Christmas Carol* is cheering,” meaning that just as Scrooge wakes up and realizes it was all a dream, readers of *Oryx and Crake* can close the book and realize there is still time to change the future (Atwood, “*Oryx and Crake Revealed*”). Is Atwood’s cheer warranted? Even if there is still time to alter our trajectory, is there the will?

The optimistic tone permeating the trilogy’s conclusion gives insight into a troubling aspect of the text. It positions the collapse of society and near-extinction of the human race as a “quick fix” to our current problems. As much as it engages the reader to question and work against the troubling trends it extrapolates, it also encourages in the reader a sense of surrender. Political theorist Fredric Jameson once remarked that it is easier for us to imagine the “thoroughgoing deterioration of the earth and of nature” than the breakdown of capitalism (qtd. in Canavan 138). Atwood sets up a disturbing world, based on our own, that clearly needs to change. However, instead of a story about doing the hard and complicated work needed to change it, she gets to wipe the slate clean and start over. Not only that, but with the Crakers, she gets to pick a new type of person to start over *with*. The Crakers retain some human qualities that Atwood perhaps cannot bear to part with, but do not need to figure out how to best use earth’s resources since their bodies just naturally lead them to do so.

Their species also conveniently has vices like racism and sexual jealousy simply turned off. Crake explains that racism, or as he calls it “pseudospeciation,” “had been eliminated in the model group, merely by switching the bonding mechanism:” the Crakers “simply did not register skin color” (OC 305). If Crake had succeeded in exterminating humans, perhaps these “designer ethics” would have worked. The reality is much messier. Crake’s quick fix to turn off sexual

jealousy was for Craker men to mate, in groups, only when a Craker woman goes into heat (or as the Crakers say, “smells blue”). Sadly, what for Crake was the “flip of a genetic switch” becomes a nightmare for the human women in the story. The first time the Crakers encounter human women after the flood is when they come upon Toby and Ren rescuing Amanda from her Painballer captors and rapists. Because Crake programmed the Craker men to mate with any woman who “smells blue” and human women almost always smell blue to them, they go to Amanda and Ren, who have both been raped and tortured by the Painballers, and...they rape them.

Of course, the Crakers do not think of it as rape. They do not know what rape is. The incident is referred to throughout the rest of the book as a “cultural misunderstanding”—one that results in pregnancies for both Ren and Amanda. It is a terrifying experience that ends up being elided by the characters, and the text, perhaps because it happens in this hybrid space between species that people do not know how to analyze. In a way, it is Crake-by-proxy raping Amanda and Ren, because he created the conditions that made it inevitable. Is this incident simply a plot device to get us quickly to Craker-human pregnancies? Pregnancy, after all, is often employed by a narrative to symbolize hope for the future. But there is also a human woman, Swift Fox, who *chooses* to become pregnant by mating with the Crakers, so why the rape? I tentatively choose to give Atwood the benefit of the doubt and read the scene as a critique of the designer ethics mentality, a way to highlight that relying on technological quick fixes to solve complicated problems has real-world consequences suffered by real people.

Beyond this incident, there is a larger gender essentialism at work at the end of the trilogy. I have already registered my disappointment in how Toby shrinks in the third book, and characters like Ren and Amanda seem less resilient as well. As the community solidifies, certain

rigidities in gender roles appear. When deciding who will join in the battle with the Painballers, Zeb says, “Some of that’s self-evident. Rhino, Katuru, Shackleton, Crozier, Manatee, Zunzuncito, coming. And Toby, of course. All the pregnant women, staying. Ren, Amanda, Swift Fox. Anyone else with a bun...” (MA 342). The people Zeb mentions as “self-evident” to join the battle are all men, except Toby, whom the pigeons specifically asked to come because she is the one with the rifle. (She is also infertile.) Swift Fox replies to Zeb that “Gender roles suck,” and he says, “Granted...but that’s the reality now” (MA 342). The reduction of women to child bearers and the fact that the first children created in this new Eden are the result of rape gets mostly glossed over; Ren, Amanda, and Swift Fox become “our Beloved Oryx Mothers” in the community’s mythos.

Atwood’s new world is also strikingly heteronormative. There are no explicit or even implied non-heterosexual characters in either the pre-flood or post-flood worlds. From the corporate Compounds, to the slums of the pleeblands, to the God’s Gardeners with their Adams and Eves, heterosexuality is the standard. Even in the hybrid, symbiotic community that closes the trilogy, the pregnancies lead to nuclear families of a sort: “Crozier and Ren appear united in their desire to raise Ren’s child together. Shackleton is supporting Amanda, and Ivory Bill has offered his services as soi-distant father to the Swift Fox twins” (MA 380). There are important non-romantic relationships that are much more central to the story than these last-minute pairings, such as the love between friends Ren and Amanda and between brothers Zeb and Adam, but it is worth considering why heterosexual pairs and traditional gender roles survive the apocalypse as intact as they do. Maybe it is a byproduct of the relative comfort and stability of the MaddAddamite community after all the tragedy and stress of the pandemic, similar to the reinvestment in traditional gender roles that followed World War II. Or maybe it is a

commentary on how easily civil rights gains can slide backward in times of crisis. Perhaps Atwood simply found it to be narratively satisfying.

As I have argued, issues of objectification and subjecthood of animals and oppressed people are connected. So my concerns about the agency of women in the novels, along with other marginalized humans, are a reminder that extending agency is not just an act between humans and animals but within the human race as well. A radical reworking of human-animal relationships helps little if other oppressions remain in place.

Tragic as they are, the clean slates of post-apocalyptic literature can be perversely seductive. Gender essentialism notwithstanding, it is hard to deny the allure of parts of the post-flood community; environmentally-minded readers will likely be drawn to the idea of a hyper-local, self-sustaining community with minimal impact on its surroundings. But if the work celebrates the community portrayed at the end, which I think it does, what does that mean for the reader? That community does not exist without what comes before it: destruction of the earth and a man-made plague intended to make humans extinct. This speaks to the “apocalyptic resignation” characterizing much contemporary environmental fiction, according to critic Richard Kerridge (qtd. in McHugh, “Real Artificial” 184).

Thinking of the apocalypse as one discrete event in the hypothetical future can also blind us to the cataclysmic events in our own time. Theorists like Timothy Morton argue that the dreaded ecological catastrophe is already happening, and has been in motion since the industrial revolution (“Rethinking Ecology”). Whether we think the apocalypse is happening now or is in the future, both mindsets can induce fatalism, dampening the urgency surely needed to instigate any large-scale solutions.

The challenge to the reader, then, becomes to take inspiration from the MaddAddam community and use it to resist the current system, one becoming more like the pre-flood world every day. In the trilogy, it takes a catastrophe to dismantle the unsustainable system. But by highlighting the possibilities inherent in this radical departure from current realities, Atwood is opening a way to engage in a different way of thinking about present actions. The word *apocalypse*, after all, can mean “an uncovering,” “an unveiling,” or “a revelation.” So how can we live post-apocalyptically without having to go through an apocalypse?

1. Champion “big tent agency.” Recognize animals as subjects, even when that subjecthood manifests itself in ways very different from humans’. Humans cannot understand the *Umwelt* of a whale or a moth, but can grant that they have one. Society’s problems are increasingly global in scope, meaning we are all in this together, human and nonhuman—now more than perhaps ever before. Thinking rhizomatically rather than hierarchically, recognizing humans are one of multiple actors on the same web, can instigate much-needed change in sectors such as factory farming.

Big tent agency must include fellow humans as well as animals and ecosystems. Interactions with people of all worldviews can benefit from an approach based in openness, one that assumes subjecthood and honors enmeshment.

2. Value and grow small resistance movements. Human-animal relationships have become so strained, and the environment so changed, that it is hard not to be overwhelmed. But there are plenty of people willing to think radically about humans’ place in the world, and there are many sites of resistance to be uncovered. Commit to doing the hard work on both personal and political scales. Eat vegetables from your yard instead of factory farmed meat. One backyard garden will not change the world, but it may inspire more backyard gardens. Yes, there will be

some missteps and we will not always know the right answer. But we can do our best today, then do a little better tomorrow, incorporating new information as we learn it.

A small but important moment comes near the end of the trilogy, when Toby scrounges up some disposable diapers for the new (hybrid) babies. But then she takes a step back and thinks, “are they even necessary? The Craker babies are not cumbered with them” (MA 380). If this sort of waste can be rethought, shaken off, it gives hope for a less destructive way of living. But I find myself looking not to the trilogy’s human characters, but to its nonhuman ones for real guidance. The way animals, from the “natural” to the transgenic, continuously resist control and subvert expectations gives me hope in the resilience and wisdom of those with whom I share the mesh.

3. Embrace complexity. An anti-environmental group in *MaddAddam* puts up billboards featuring “stuff like a cute little blond girl next to some particularly repellent threatened species, such as the Surinam toad or the great white shark, with a slogan saying: *This? Or This?* Implying that all cute little blond girls were in danger of having their throats slit so the Surinam toads might prosper” (MA 182). Essentialist rhetoric like this is easy to find in our culture. It is also fallacious, harmful, and frankly, boring. Constructive ecological thought does not shy away from the complexities of our situation. As Morton says, “The only way out is in and down,” calling this approach *dark ecology*, a theory that “realizes that we are hopelessly entangled in the mesh” (“Thinking Ecology” 293).

Disengagement may feel like the purest choice, but recognizing the depth of entanglement in any ecosystem marks this purity as an illusion. Engage, but do so with thought and respect. As animal studies scholar James Stanesco writes, “The purpose here is not simply to switch or invert the dialectic—to prefer guilt over innocence, to prefer pollution over purity, to

prefer the profane over the sacred—but rather to find ways to exit from such economies all together, to find ways to be neither a beautiful nor damaged soul” (41). The conversation needed now is not “this or this”—not “vegan or carnivore,” not “wildlife or industry,” not “humans or animals.” It is not about purity, or certainty, or power.

The *MaddAddam* trilogy is a slippery text in that it does not vindicate any one worldview. Vegans will not find a wholesale condemnation of meat eating; those against genetic engineering will not find an anti-science screed; environmentalists looking for black-and-white tenets will find only a gray world. No group can hold it up as *their* cautionary tale—which is what makes it all the more real and meaningful.

4. Rewrite the story. Even though the trilogy is tragic for humans, who witness the near-extinction of their species, it can be read as a story of recovery and renewal for the ecosystem as a whole. A glimpse into a post-capitalist world, even if it is created by catastrophe, can open up new ways of thinking about the same old problems even while in the throes of capitalism. McHugh writes that *MaddAddam* is helpful in getting “out from under the master narratives of evolution, ecology, and more pervasively of disciplines” (“Animal Stories” 217). The stories we tell ourselves matter. That is why fictional worlds such as Atwood’s can make ripples in the real world. It is time for us to embark upon a new story.

In that vein, I will end with excerpts from two very similar, very different versions of the Craker origin story.

The Story of Two Eggs, as told to the Crakers by Snowman/Jimmy:

[Oryx] laid two eggs: one full of animals and birds and fish, and the other one full of words. But the egg full of words hatched first, and the Children of Crake had already been created by then, and they’d eaten up all the words because they were

hungry, and so there were no words left over when the second egg hatched out. And that is why the animals can't talk. (OC 96)

The Story of Two Eggs, as told to the Crakers by Toby:

The other egg [Oryx] laid was full of words. But that egg hatched first, before the one with the animals in it, and you ate up many of the words, because you were hungry; which is why you have words inside you. And Crake thought that you had eaten all the words, so there were none left over for the animals, and that was why they could not speak. But he was wrong about that. Crake was not always right about everything.

Because when he was not looking, some of the words fell out of the egg onto the ground, and some fell into the water, and some blew away in the air. And none of the people saw them. But the animals and the birds and the fish did see them, and ate them up. They were a different kind of word, so it was sometimes hard for people to understand the animals. They had chewed the words up too small. (MA 290)

When Jimmy tells the Crakers their origin story at the beginning of the trilogy, words go only to humans and Crakers. When Toby tells it at the end of the trilogy, all creatures partake of the second egg.

This is our challenge, to honor that “different kind of word,” to expand our story beyond the human, to respect Children of Crake and Children of Oryx both.

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