
Cooking, Postfood, and Our Posthuman Future in Margaret Atwood's *MaddAddam* Trilogy

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Abstract

My goal in this paper is to discuss the relationship between food and the human in Margaret Atwood's *MaddAddam* trilogy. Influenced by capitalist production and consumption, nearly all the foods we currently consume come to us through the industrial food chain. I call this type of new food "postfood" in this article, for it is produced and manufactured differently from food in the past. Hannes Bergthaller once argued that humans invented numerous technologies of self-domestication to eliminate the brutality in their nature and become more civilized. I borrow his concept in my study and propose to conceive of cooking as one of the technologies of self-domestication. The way the human body processes food changes continuously with the advances of technology. In a highly industrialized society, the sophisticated industrial food chain further changes these technologies. Postfood gives rise to the posthuman body while calling into question the viability of a posthuman future. Through the post-apocalyptic narrative of the *MaddAddam* trilogy, Atwood presents the possible consequences when food, technology, and humans rapidly co-evolve.

KEYWORDS postfood, the posthuman body, technology, cooking, self-domestication

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Beginning with *Oryx and Crake*, published in 2003, Margaret Atwood's *MaddAddam* trilogy concludes with *MaddAddam: A Novel* in 2013. The imaginative power of literature presented in this trilogy has drawn critical attention on several fronts. For example, J. Paul Narkunas proposes that the *MaddAddam* trilogy presents the possible consequences of the instrumentalization of life in a capitalist society. Ashley Dawson challenges the idea of green capitalism and notes that "[c]apital is turning, in other words, to increasingly extreme forms of commodification of the genetic building blocks of life in order to solve the very ecological crises generated by humanity's intensifying exploitation of the planet's natural resources" (64). Most of the feedback focuses on the issues of ecological crises and the unbridled development of biotechnologies, transhumanism, and posthumanism, which have been richly entwined with Atwood's concerns about contemporary social problems. By contrast, scant attention has been paid to her descriptions of food in this trilogy, descriptions that involve food politics, as Sean Murray argues in her "Food for Critical Thought: Teaching the Science Fiction of Margaret Atwood."

In *The Omnivore's Dilemma*, Michael Pollan notes that "[e]ating is an agricultural, ecological and political act" (12). What we eat determines who we are, as many scholars have mentioned,¹ and food also reveals our relationship with the environment around us. The greatest change in our relationship with food comes after the industrialization of society. Produced by industrialized assembly lines, commodified and technologized food re-shapes the human body and revolutionizes eating cultures. Atwood's detailed descriptions of food do not merely echo Pollan's statement but also present an insightful perspective on how we have acquired posthuman bodies. The term "posthuman body" used here is drawn from two observations related to how we interact with food. On the one hand, the industrial food system changes the way in which we obtain food; on the other hand, that same system adapts our bodies through gradual transformations to its operation. Cooking plays a significant role in this adaptation, Pollan argues, for the human body is transformed by the cooking of our food. We may thus regard cooking as a domain in which science, technology, nature, and culture become intertwined (*Cooked* 16-17). In *The Raw and the Cooked*, Claude Lévi-Strauss proposes that in several myths and legends, the origin of the cooking fire serves the mediatory function of "sav[ing] man from the *world of rotteness* in which he

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¹ See, for example, Dalessio.

would find himself if the sun really disappeared” (293). According to Pollan’s interpretation, cooking is a significant human behavior that could be viewed as “a metaphor for the human transformation of raw nature into cooked culture” (*Cooked* 6). Pollan further remarks that “other anthropologists have begun to take quite literally the idea that the invention of cooking might hold the evolutionary key to our humanness” (*Cooked* 6). If cooking defines our humanness, the tectonic shift in the substance of cooking—the industrialized assembly lines for producing food products—re-defines our humanness. Whereas Bernard Stiegler tells us that the emergence of the human is contingent on our co-evolution with technical beings (134-35), the drastic changes of the technical *milieu* after the industrial revolution lead to the incessant exteriorization of the human body, that is, the “outsourcing” of nearly all the organic, sensory, and motile functions of our bodies. I will argue that this new stage of exteriorization, born of industrialization, gives rise to the posthuman body.

The food produced by industrial means not only re-shapes the human body but also changes our landscapes and social relationships; it is thus called “postfood” in this article. To follow Stiegler’s proposition, we can also say that postfood and the posthuman body have co-evolved. Atwood’s *MaddAddam* trilogy shows us the difficulties brought on by this co-evolution: when we choose to “outsource” the work of digestion and chewing, for example, we risk rendering ourselves powerless, subject to a future devoid of diversity and heterogeneity. This article focuses on how postfood renders the world post-apocalyptic by examining Atwood’s depictions of the industrial food system, changes in eating habits, and how people manage to survive in a world without food factories, supermarkets, and restaurants in her *MaddAddam* trilogy. The post-apocalyptic narrative Atwood deploys shows what remains of a high-tech world after all technical and social networks related to the industrial food system have collapsed. In times when all the industrial assembly lines, products, and their commercial networks function smoothly, it is difficult to perceive the influences of industrialized and technologized foods on human bodies and social structures. A systemic failure, on the other hand, makes it possible for us to scrutinize the advantages of postfood, including convenience, safety, taste, and nutrition.

Post/food, Cooking and the Post/human

In the opening of *Oryx and Crake*, Snowman wakes up in a bed mounted in a tree. Instead of going to the kitchen to get some food, he “rummages around in the cache he’s improvised from a few slabs of concrete, lining it with wire mesh to keep

out the rats and mice” (4). In this strange fund of food, he has “stored some mangos, knotted in a plastic bag, and a can of Sveltana No-Meat Cocktail Sausages, and a precious half-bottle Scotch,” along with “a chocolate-flavoured energy bar scrounged from a trailer park, limp and sticky inside its foil” (4). This list of food is more like a collection of kitchen waste than something that modern people would enjoy eating. Not until much later do the readers find out that Snowman is not a vagrant in the modern world but a survivor in a post-apocalyptic world. Snowman’s craving for food among the relics of civilization begins the story. In this episode, the list of food, representing remnants of the (failed) modern industrial food chain, epitomizes the human history of food—why humans require food and how they produce and store food. Unable to make his own food, Snowman has to rely on what he can find. Showing us a modern person’s failure to do without the industrial food chain, this episode can be read as a fable where cooking is shown to be Janus-faced: creating as well as ruining human civilization.

How does this duality of cooking come about in the development of human civilization? Several scholars have pointed out the essential role cooking plays in enabling humans to become stronger and healthier.² Richard Wrangham even argues that cooking makes us human.³ Stiegler’s theory on prosthesis is illuminating on the co-evolutionary relationship between humans and food processing technologies.⁴ In his *Technics and Time 1*, Stiegler redefines prosthesis and contends that “[t]he prosthesis is not a mere extension of the human body; it is the constitution of this body *qua* ‘the human’ (the quotation marks belong to the constitution)” (152-53). In other words, the prosthesis is an essential constituent of the human body and of the concept of the human. He explains that the prosthesis involves an exteriorization of the functions of the body. While exteriorization indicates the presence of an interior, the relationship between the interiority and its exteriorization is not chronological. As Stiegler puts it, “Neither one precedes the other, neither is the origin of the other, the origin being then the coming into adequacy or the simultaneous arrival of the two” (152). Simply put, the use of objects co-evolves with the evolution of humans. Humans

² For example, in Felipe Fernández-Armesto’s view, the cooking revolution should be viewed as the first scientific revolution because it had a huge influence on the human body as well as on daily life (11). As he tells us, cooked meat allows more nutrition to be absorbed by the human body, because cooking fuses the protein in the muscle fibers, turning collagen into jelly (11).

³ According to Wrangham’s theory, cooking is a technology that defines what the human is: humans rely on cooking to consume more energy with the unexpected expansion of the human population (2).

⁴ Stiegler begins his contemplation of the definition of the human by asking “who” or “what” does the work of inventing. Is it the “human or the technical?” (134). In his proposition, technical objects play a certain role in the discourse of the invention of the human. Is it possible that the technical invents the human? In Stiegler’s view, the answer lies in how we re-think the concept of the prosthesis.

invent tools to enhance their ability but must also adapt themselves to the use of the tools. In W. J. T. Mitchell and B. N. Hansen's words, the conception of the "co-originality" of technics and the human defines the human as a prosthetic being (xiii). What makes people "human" is their interactions with and reliance on the environment and the tools they use. Stiegler's theory leads us to conclude that the posthuman condition was already there when humans learned how to use tools. In other words, posthumanity is inherent in humanity. Nevertheless, a huge leap from the human to the posthuman conditions took place when modernity occasioned the advancements of technologies.⁵ To follow Stiegler's logic, cooking is one of the prosthetic constituents of what makes one (post)human. Cooking, food, and humans compose a triangular relationship, with each depending on the others.

As mentioned above, food is a daily necessity for humans. However, constrained by its peculiar structure, the human body cannot eat and absorb everything surrounding it even though humans are generally omnivores. The human body has evolved particular organs to chew, swallow, and digest "edible" objects, such as fruits, vegetables and meats. In addition, cooking enables humans to access more food because certain things are poisonous or indigestible when they are raw. Unlike other tools and objects that humans use, food is absorbed into the body, providing/becoming energy for it.

Merging with the body, food becomes the human body, and the human body also "becomes" the food, to borrow Gilles Deleuze and Félix Guattari's terms. In *A Thousand Plateaus: Capitalism and Schizophrenia*, Deleuze and Guattari develop the concept of becoming-animal. "Becoming," according to them, is not confined to the relationship between the human and animals; becoming "is a rhizome, not a classificatory or genealogical tree" (239). The process of becoming would also generate a temporary relationship, which they term *assemblage*. This assemblage produced by food and the human body cannot operate well without the technology of cooking. In the following passage, Pollan's description of the function of cooking tells us how the triangular relationship works:

Cooking, in effect, took part of the work of chewing and digestion and performed it for us outside of the body, using outside sources of energy. Also, since cooking detoxifies many potential sources of food, the new technology cracked

⁵ Stiegler's conception of the prosthetic being helps us understand the engagement of technics in overcoming the limitations of the human body. What is debatable in his theory, however, is the paradox of the enhancement of human abilities via technologies—that is, technology enhances *and* weakens humans simultaneously. This concept will be discussed in tandem with Berghaller's conception of self-domestication later in the article.

open a treasure trove of calories unavailable to other animals. Freed from the necessity of spending our days gathering large quantities of raw food and then chewing (and chewing) it, humans could now devote their time, and their metabolic resources, to other purposes, like creating a culture. (*Cooked* 6)

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Thus, cooking exteriorizes a good part of the digestive work of our body. It transforms some inedible plants into food, which helps humans to expand their choices of food. No other animals have developed such efficient and effective methods to overcome the limitations of their bodies so as to obtain more energy.

Food becomes the unique Other to the human body via cooking. Because of the human need for a wide variety of food, according to Pollan, our eating “constitutes a relationship with dozens of other species—plants, animals, and fungi—with which we have coevolved to the point where our fates are deeply entwined” (*Omnivore’s Dilemma* 10). It is true, in Pollan’s words, that “our eating turns nature into culture, transforming the body of the world into our bodies and minds” (10). However, as both Tom Standage and Pollan have warned us, although humans cultivate specific crops and raise the animals they have domesticated, when humans become accustomed to those domesticated plants and animals and fixated on their desired characteristics, the same humans lose the ability, courage, and desire to seek and sample other food sources. When only certain species of plants and animals are cultivated on a wide scale, humans become increasingly dependent on them. The result is that humans domesticate themselves by taming the world they rely on (Standage 25; Pollan, *Omnivore’s Dilemma* 10-11).

Modern food processing, which replaces cooking, reinforces and re-forms the technologies of human self-domestication. Here, the concept of self-domestication is drawn from Hannes Bergthaller. Resonating with Peter Sloterdijk’s idea, Bergthaller remarks that humanist scholars have developed technologies of self-domestication to render humans more governable (733-34).⁶ Although

⁶ According to Sloterdijk’s studies in ancient humanism, literacy is related to the issue of anthropodicy, the issue regarding how to “wean oneself from one’s bestiality and to establish a distance between yourself and the dehumanizing escalation of the roaring mob” in the amphitheater (16). For these ancient humanists, philosophical reading was the best means/media to resist the “dehumanizing, impatient, unrestrained, sensation-mongering and the excitement-mongering of the stadium” (Sloterdijk 16). Taken together, knowing how to read and write enables humans to communicate with one another and regulate their behavior. Via literacy, humans are tamed. In Bergthaller’s view, the concept of sustainability is also one of the technologies of self-domestication. This concept, as he observes, consists of a paradoxical logic: “we no longer just want to preserve certain natural habitats or reduce the quantity of particular harmful substances in the environment, we want to achieve these goals *while at the same time* allowing for further technological, economic, and social progress on a global scale” (730). He concludes that human beings are the only species that “*decided* to impose limits on its interactions with the environment in order to perpetuate its own existence” (732).

Bergthaller's concern lies in laying bare the problematic logic of ecocriticism, his observation demonstrates the difficulties of our posthuman future, that is, the consequences of the becoming-prosthesis of humans. On the one hand, the rapid development of science and technology seeks to assist human beings in overcoming the limitations of the body. On the other hand, humans try to figure out how to meet their needs without paying the costs, which often fails. Nevertheless, the most insightful lesson that Bergthaller draws from Sloterdijk is how technologies empower humans by domesticating them. The technologies of self-domestication may lead to humans becoming more domesticated and docile in the future. As the most powerful technology of self-domestication, industrial food systems work much better than cooking in terms of exteriorizing the digestive and energy-absorbing functions of the human body because they employ advanced scientific and efficient methods to process food. Food processing fulfills our dream of liberating food from nature. In Pollan's words, learning how "to salt and dry and cure and pickle in the first stage of food processing, and to can, freeze, and vacuum-pack in the second" frees people "from nature's cycles of abundance and scarcity, as well as from the tyranny of the calendar or locale" (*Omnivore's Dilemma* 90).

"Food system," a term invented by scientists to replace the word "food," according to Pollan, manifests the scientifically-based and profit-driven nature of the food industry that has allowed processed food to dominate the market (*Omnivore's Dilemma* 93). Convenient, clean, and delicious though these foods may be, customers can no longer identify the ingredients in the processed foods. As Pollan complains, when a customer visits a supermarket, it is nearly impossible for him or her to trace the items in the shopping cart all the way back to where they come from (17). Currently, the origin of processed foods is "so complex or obscure that it requires expert help to ascertain" whence those foods are derived (17). Of course, the term "food system" is extremely vague because it can be applied to any society. However, examining this concept, Pollan notes the inter-relations between food and technology under the process of industrialization, which drastically changes the ways we cope with food. The term "food system" cannot fully describe the modern food systems that are featured by what Bruno Latour calls "blackboxing," a process that renders the joint production of actors/humans and artifacts/technical objects opaque (183). Rejecting the concepts of technical determinism and materialism, Latour proposes that we see humans and nonhumans/technical objects⁷ as folding into one another, forming a collective relationship via

⁷ Latour's use of the word "nonhuman" refers to what is not human, thus including all matter in the world. But

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technical mediation (176). In this relationship, humans are changed by the non-humans and vice versa (176-78).

Similarly, modern food systems which create abundant processed foods are in fact black boxes because customers do not know how they are produced and where those ingredients come from. The food we have today is “postfood” in the sense that all kinds of food have become opaque commodities, which gradually transform and tame humans. Because most customers care only about where to buy food, how much it costs, and how it tastes, they also become part of the industrial food chain, or the black box. According to Pollan, although customers are encouraged to expand their food choices, the ingredients of the food in the supermarket, or in what I call “postfood” here, are virtually identical. In his observation, those products generally contain large amounts of fat and sugar, and ironically, “[o]ur bodies are storing reserves of fat against a famine that never comes” (*Omnivore’s Dilemma* 106). Not only is our body/posthuman body woefully fobbed off by postfood, which brings us abundant calories but little nutrition and energy, it is also weakened by it. In *The Story of the Human Body*, Daniel E. Lieberman coins the word “dysevolution” to re-examine the health issue of mismatch diseases that we suffer in modern society. Mismatch diseases have resulted from a vicious circle “caused by interactions between cultural evolution and biology” because we are “inadequately adapted to a change in the body’s environment, either from too much, too little, or too novel a stimulus” (175-76). For example, humans “have little natural defense against cavity-causing microbes other than saliva”; however, modern diets contain abundant microbe-inducing starches and sugars, making cavities therefore one type of mismatch disease (175). That is why Lieberman defines mismatch diseases as the result of cultural evolution in that we “pass on those environmental conditions to our children” without effectively preventing root causes (175-76). Postfood is a perfect example of dysevolution. As Lieberman tells us, we are falling into the trap of “the vicious circle of too much” (251). Although modern diets help us obtain more energy, our tendency to expend less of it destroys the energy balance, which causes mismatch diseases, such as obesity (253).

Undoubtedly, postfood, the (post)food system, and the posthuman body form a new relationship, or a new assemblage.⁸ Although we invent industrial food to obtain energy from convenient sources, our bodies, relying heavily on postfood, have been tamed by becoming accustomed to its tastes and the industrial manner

in the context of his explanation of technical mediation here, “nonhuman” refers to technical objects.

⁸ I use Deleuze and Guattari’s concept of assemblage here to emphasize the constantly changing relationship between the body and the environment surrounding it.

of production. Consequently, we are also suffering from more mismatch diseases, such as cavities, obesity, type 2 diabetes, and heart disease. The assemblage of postfood, the food system, and posthuman body suggests a new stage of humans' self-domestication. Intended to overcome the omnivore's dilemma and remove the risks of having poisonous and inedible food, the invention of postfood entrenches the dilemma of the posthuman age. All the (post)food systems encourage the customers to satiate their desires by consuming as many products as possible. However, most of the black boxes of postfood obscure their ingredients, which turns the (post)human body into a commodified body tamed by all types of processed food with chemicals displacing natural nutrition, and even with fake fats, fake sugars, and fake starch. Therefore, the three components of the assemblage (postfood, the (post)food system, the posthuman body) are in a conflicting relation: although they are poised to enhance one another, they hold one another back. When one of the components breaks down, the others fail. That is why *Oryx and Crake* begins with a horrible post-apocalyptic scene in which the postfood-(post)food system-posthuman body assemblage collapses, which is one possible and very likely consequence of the extreme development of human self-domestication.

Oryx and Crake: No One Wants to Cook

In *Oryx and Crake*, Jimmy-Snowman represents one whose body is completely domesticated, exemplifying the dilemma of the postfood-(post)food system-posthuman body assemblage. Jimmy-Snowman, having grown up in a high-tech compound, is in danger of starving to death after the destruction of the world by the rapid spread of a super virus. Accustomed to processed food, he has never seen the "original" likeness of food, nor does he know how domestic animals, such as chickens, cows, and pigs, are raised, killed, cooked, and processed. He only knows how to order meals in a restaurant or consume the microwave processed food that he buys in the supermarket. When all food chains collapse, having previously lost the ability to forage for edible things and cook food, he does not know any survival skills. Driven by hunger, he thinks of looking for food in supermarkets, restaurants, kitchens in people's houses, and other places in which there may be some food left. Relying on scavenging for food for survival, he never cooks. In one episode, a bout of carnivorous urge nearly drives him to catch his own prey and eat it raw like a primitive man would. The event bears closer inspection.

In the episode, Jimmy-Snowman encounters a green rabbit, the product of bioengineering technology. The rabbit "glows in the dusk, a greenish glow filched

from the iridocytes of a deep-sea jellyfish in some long-ago experiment” (*Oryx* 95). This strange rabbit unexpectedly arouses his appetite for meat, for it “looks soft and almost translucent, like a piece of Turkish delight; as if you could suck off its fur like sugar” (95). In addition, he “longs to whack it with his bare hands, then cram it into his mouth, fur and all” (96). His appetite, a mixture of longing to have sweets and meat, ignites his desire to act like a primitive man. However, he suppresses his desire because, as he says, he does not want to offend the Crakers⁹ who believe that rabbits are sacred to Oryx, a goddess in the mythology that Jimmy-Snowman fabricates. His explanation here is suspicious when it is compared with another episode in which he asks Crakers to catch, kill, and grill fish for him every week. Although he rationalizes his request by telling the Crakers that Oryx allows him to eat fish, it does not justify his demand that the Crakers, who are herbivores, kill fish for him. It is more likely that he himself refuses to kill and cook animals. It reminds one of Pollan’s comments on why people need to cook food, because “[c]ooking puts several kinds of distance between the brutal facts of the matter (*dead animal for dinner*) and the dining-room table set with crisp linens and polished silver” (*Cooked* 51). Jimmy-Snowman would rather keep himself at the other end of the dining-room table than help kill, cut, chop, and cook animals.

His self-repression is not surprising because his education altogether involves “practical” courses, such as “Applied Logic, Applied Rhetoric, Medical Ethics and Terminology, Applied Semantics, Relativists and Advanced Mischaracterization, Comparative Cultural Psychology, and the rest” (*Oryx* 188). Ironically, those practical courses, which supposedly help him live better, lead Jimmy-Snowman away from his materiality, that is, his body. In the education system, students are implicitly differentiated by their capacity to deal with words and numbers. The fact that the “numbers person” is often perceived as superior to the “words person” reflects the societal attitude that encourages the pursuit of the abstraction and mathematization of matter in the name of science and technology. Thus, in the story, it is predictable that the scientists and other experts will become enthusiastic about inventing and creating new plants, insects, and animals, believing that science can do anything.

For example, in the Department of NeoAgricultures at the Watson-Crick Institute, where Crake receives his college education, students are encouraged to revolutionize the industrial food chain, rendering it more efficient and profitable. One of the “efficient” organisms that they invent is called “chicken parts.” The

⁹ The Crakers, or Children of Crake, are a new species created by Jimmy’s best friend, Crake, in the laboratory.

chicken looks like a large bulblike object and out of it come “twenty thick fleshy tubes, and at the end of each tube another bulb [is] growing” (*Oryx* 202). Its head is in the middle and “there’s a mouth opening at the top, they [the students] dump the nutrients in there” (202). Moreover, “all the brain functions that ha[ve] nothing to do with digestion, assimilation, and growth” are removed (203). It is the most efficient manner of growing chickens because, as a student explains, “[y]ou 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” (203). Ironically, this new species of chicken is more like a plant “because this thing feels no pain,” which might stop animal-welfare experts’ complaints and protests (203). If all livestock is produced in labs like this, the definition of “farms” and “fields” must be changed. Atwood’s description here echoes Allison Carruth’s observation of the postindustrial era of agricultural networks. As Carruth notes, “the boundary between the lab and the field all but disappears” because “the future of food production may move from the farms of the countryside to the vertical greenhouses and biotech labs of the city” (17). The food no longer comes from the rural farms and fields, which traditional pastoral tropes have generally relied on, as Carruth laments (17). This tendency toward biocommodification, as Ashley Dawson calls it, appears likely to solve “the very ecological crises generated by humanity’s intensifying exploitation of the planet’s natural resources” (64). However, unexpected consequences emerge, such as diseases crossing geographical boundaries and species boundaries (Dawson 67). Likewise, although these postindustrial food systems transform food into multiple layers of black boxes, produced by complicated biotechnologies, they hide some unexpected counter effects.

The black box of food is not merely a metaphor; it is also a reality of how food is produced by industrial food systems. The production of toast exemplifies this mysterious food system process. It is not surprising to see that Jimmy-Snowman fails to explain what toast is when the Crakers ask him about life in the past. Even when he tries to answer this question for himself, he fails to describe it in detail. However, like a magician, he pulls endless things out of his magic box of recollections of things past:

Toast is when you take a piece of bread—What is bread? Bread is when you take some flour—What is flour? We’ll skip that part, it’s too complicated. Bread is something you can eat, made from a ground-up plant and shaped like a stone. You cook it . . . Please, why do you cook it? Why don’t you just eat the plant? Never mind that part—Pay attention. You cook it, and then you cut it into slices, and you put a slice

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into a toaster, which is a metal box that heats up with electricity—What is electricity? Don't worry about that. While the slice is in the toaster, you get out the butter—butter is a yellow grease, made from the mammary glands of—skip the butter. So, the toaster turns the slice of bread black on both sides with smoke coming out, and then this "toaster" shoots the slice up into the air, and it falls on to the floor . . . (Oryx 98; ellipses in orig.)

Pretending to respond to the Crakers' possible questions, Jimmy-Snowman recalls life when he could still have toast. The toast's potential to become a black box lay right in the beginning when it was invented. According to Pollan, a sourdough fermentation, the most essential process in making bread, is most likely the earliest technology of rendering "grass seeds nourishing to humans" (*Cooked* 228). As he tells us, the yeasts, bacteria, and organic acids involved in the process of fermentation contribute to leavening the bread, adding aromas, strengthening the dough and helping to activate various enzymes in the seed (228). The making of toast/bread efficiently maximizes the energy from plants for humans. The modern industrial food chain further renders mass production possible.

Jimmy-Snowman's monologue reveals his ignorance of the operation of food systems as he skips the question about the production of bread. The two questions, "Please, why do you cook it?" and "Why don't you just eat the plant?", indicate the paradox of this industrial food system. That is, although humans would have a much simpler way of feeding themselves if they ate plants like herbivorous animals, people are not satisfied with limited food choices. Cooking and other advanced manners of processing food offer them convenient and rich food choices; these choices render humans impotent, however, if the entire system collapses. Conversely, this monologue demonstrates how the production and consumption of food is associated with a series of processes and networks. The industrial networks string together a wide variety of related products and items: a toaster, butter, electricity and so on. Undoubtedly, toast is a black box connected with numerous other black boxes.

Jimmy-Snowman gets extremely depressed recalling the things of the past because the industrial networks have broken down. Without support from agricultural and industrial systems, it is impossible to have toast/bread again. Thus, toast has become a meaningless concept. He tells himself:

Toast was a pointless invention from the Dark Ages. Toast was an implement of torture that caused all those subjected to it to regurgitate in verbal form the sins and crimes of their past lives. Toast was a ritual item devoured by fetishists in the belief

that it would enhance their kinetic and sexual powers. Toast cannot be explained by any rational means.

Toast is me.

I am toast. (Oryx 98)

The toast here is a symbol of the postfood-(post)food system-posthuman body assemblage. To have a cheap loaf of bread, the consumer must embrace the capitalist food chain and the culture of postfood. Referring to the high-tech world of the past as the Dark Ages is not ironical. The wide variety of postfood might “enhance their kinetic and sexual powers”; however, it domesticates the post/human body by exempting humans from the task of knowing how to make their own food. Humans exchange knowledge for a life of ease and comfort. The clean, rational, and splendid high-tech world is thus tinged with human impotence, with the bright high-tech world shadowed by the forfeiture of knowledge. Thus, Jimmy-Snowman is toast because his body represents something completely domesticated by postfood and its culture, becoming increasingly monotonous. Postfood, the product of biocommodification and industrialization, points to a future in which both the humans and their environments lack diversity and richness.

**Postfood in
Atwood's
MaddAddam
Trilogy**

The Year of the Flood and MaddAddam: To Cook or Not to Cook?

Not everyone wants to become part of the postfood-(post)food system-posthuman body assemblage in Atwood's stories. Crake, modeled on the image of the mad scientist, strives to “design” a new species of *Homo sapiens* to tackle ecological crises. Proclaiming that humans are the center of the problem, he attempts to eliminate the destructive features of *Homo sapiens* in his laboratory, such as their aggressiveness, hierarchical social mindset, and omnivorous desires, in the hope of creating the most perfect “humans” on earth. Once they are made more eco-friendly, the Children of Crake, the outcome of this experiment, are designed to recycle their caecotrophs. For very practical reasons, Crake argues that “[c]aecotrophs were simply a part of alimentation and digestion, a way of making maximum use of the nutrients at hand,” while people's objections to the process are “purely aesthetic” (Oryx 159). According to Bergthaller, Crake's ideal form of the perfect human being is the result of an extreme form of human self-domestication, “creating a species of human beings that will be congenitally unable to soil the planetary *oikos*” (735). This new species radically transforms the postfood-food system-posthuman body assemblage because postfood and

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industrial food systems are no longer necessary. The Crakers require only plants to survive, and are thereby enabled to live a lifestyle similar to the one that Adam and Eve had in Eden. Relying on gathering plants and fruits, they do not need to cook and manage food. Ironically, the Children of Crake, created by scientific commodification, are the most effective weapon against capitalism.

Nevertheless, is biocommodification the only way to transform the postfood-(post)food system-posthuman body assemblage? Or must humans return to a primitive way of life to have a sustainable future? In *The Year of the Flood*, Atwood presents another possible solution: to become a natural food-New Ark-laboring body assemblage. In contrast to the modern and advanced lifestyle of high-tech compounds, God's Gardeners, an alternative religious group, chooses to live an eco-friendly way of life. Resisting the seductive bromides of the opaque industrial food chain, the Gardeners try to redeem people from "polluted" food by opening up the black boxes of postfood. Building their own Eden, the Gardeners dream of going back to places like the first garden that God gave humanity. Renaming their garden Edenciff Rooftop Garden, the Gardeners maintain a self-sufficient life, planting fruit and vegetables on the roofs of urban buildings (Atwood, *Year* 11). This biblical allusion is integrated with environmentalism as Adam One, the leader of the Gardeners, strives to help his followers adapt to modern life without falling into the traps of capitalism. He persuades them to build their own Garden because "[b]y covering such barren rooftops with greenery we are doing our small part in the redemption of God's creation from the decay and sterility that lies all around us, and feeding ourselves with unpolluted food into the bargain" (11). It appears that both Crake and the Gardeners are pursuing immortality via their own Edens. Nevertheless, according to Narkunas, "[w]hereas Crake believed in biology as stable ontology for social engineering to remake the human thing, Adam One and God's Gardeners believe in a transcendent soul connected to nature as a way to transcend thingness" (18). To a certain degree, Narkunas' observation is correct. The distinction between Crake's and Adam One's philosophies of humanity achieving immortality lies in their different strategies of redefining human beings. Whereas the former employs advanced technologies of self-domestication to transform humans, the latter encourages humans to reconnect with nature. However, although Adam One believes in overcoming mortality through religion, it is not a transcendental soul that makes them feel "connected to nature as a way to transcend thingness." Rather, it is the laboring body, the material thingness that helps them build their Eden.

The Gardeners are assigned to work in different fields to make their own food and produce their daily necessities. For example, Toby, one of the Gardeners, helps

another Gardener tend “the Edencliff beehives and the crops of buckwheat and lavender grown for the bees on adjacent rooftops, extracting the honey and storing it in jars” (*Year* 101). They also recycle wine collected from the dump boxes at the back entrances of the bars and nightclubs and strip joints and make it into vinegar. Nothing is useless to them, so much being only “matter that hadn’t been put to a proper use” (69). They refuse to collaborate with any system that produces black boxes. They resist and undermine industrial chains, including postfood systems, by rendering them transparent. Refusing to eat postfood, they choose to labor in the fields and cook their own food. Adam One once comments on the disaster caused by postindustrial society by naming it the Fall of Man. The human race’s ancient ancestors, according to his interpretation of the Bible, fell out of the trees and then “fell from vegetarianism into meat-eating” (188). They further “fell from instinct into reason, and thus into technology; from simple signals into complex grammar, and thus into humanity; from firelessness into fire, and thence into weaponry; and from seasonal mating into an incessant sexual twitching” (188). From Adam One’s perspective, meat-eating should not be celebrated as civilized behavior. In addition to science and technology, it is the origin of evil. In this sense, he shares Crake’s views. However, rejecting radical methods to transform humanity, Adam One values the potential of the human body, renaming it the Ark, which he believes can assist the human race in surviving large-scale disasters.

The Gardeners’ interpretation of the biblical story of Noah’s Ark comes from their belief that another severe punishment from God is inevitable because of the human race’s overpopulation and wickedness. Although they do not know in what form the punishment will be inflicted on humanity, calling it the “Waterless Flood,” they endeavor to be well-prepared for the impending catastrophe. Viewing their own bodies as the Arks, they intend to float above the Waterless Flood with the aid of the food they keep in hidden storage places. They sing in a hymn, “My body is my earthly Ark, / It’s proof against Flood; / It holds all Creatures in its heart, / And knows that they are good” (93). The Gardeners, by re-interpreting the story so as to adapt it to their reality, develop practical strategies for survival. They do not collect animals but stockpile food and learn survival skills.

Thus, the Gardeners develop a new assemblage, the natural food-New Ark-laboring body assemblage, which re-examines the relations among food, humans, and nonhumans. Proclaiming that all creatures are equal, Adam One draws his conclusion from his reading of Genesis. He claims that “God must have caused the Animals to assemble by speaking to them directly,” and “He called the Animals in their own languages” (12). Thus, to the Reindeer “He spoke Reindeer, to the Spider, Spider; to the Elephant He spoke Elephant, to the Flea He spoke Flea, to

the Centipede He spoke Centipede, and to the Ant, Ant” (12). The fact that God endows Adam with the power to name all animals is not because Adam is superior to them. Rather, “[t]o Name is—we hope—to greet; to draw another towards one’s self” (13). Adam One says,

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Let us imagine Adam calling out the Names of the Animals in fondness and joy, as if to say, *There you are, my dearest! Welcome!* Adam’s first act towards the Animals was thus one of loving-kindness and kinship, for Man in his unfallen state was not yet a carnivore. The Animals knew this, and did not run away. So it must have been on that unrepeatable Day—a peaceful gathering at which every living entity on the Earth was embraced by Man. (12-13)

Therefore, humans should abandon their meat-eating and regain their intimacy with and love for all animals. Harmonious relations among all creatures would keep humans safe from dangers. The story of Noah’s Ark, a metaphor of God’s punishment of wicked human beings, in fact offers humans guidance in times of apocalyptic catastrophes. In the biblical version, the ark transports selected humans as well as a wide variety of animals, and the humans take care of the animals. In Adam One’s version, the human body, like Noah’s Ark, is responsible for creating a peaceful relationship with nonhumans on the basis of co-existence. The human body is the means and end of this mission. To sacrifice one’s carnivorous desire is the best way in which to protect other animals’ right to live on the earth. Because humans have many food choices, they do not need to eat meat. In Adam One’s view, to maintain a balanced relationship between humans and nonhumans is also a way to maintain a healthy human body, a way to keep the world from falling apart.

Moreover, to sustain this balanced relationship, humans must labor. The Gardeners oppose a high-tech life because it encourages people to rid themselves of physical labor, replacing it with the service of machines or others. SecretBurgers exemplifies the consequences of this replacement when the postfood system turns food into a black box. Toby once worked in a restaurant called SecretBurgers, selling hamburgers with unknown ingredients. Their customers did not care about the secrets behind SecretBurgers, that is, what sort of animal protein was in fact in them (33). As Toby sarcastically describes what she saw, the “meat grinders weren’t 100 percent efficient; you might find a swatch of cat fur in your burger or a fragment of mouse tail” (33). The delicious look of a hamburger is a camouflage for the dark associations of processed food. The pursuit of convenience leads to indifference and then to risks unknown to customers. The postfood empire

created by the industrial and high-tech food chain is in fact a dystopia. As mentioned above, the Gardeners try to tear open the black box and see what is inside. Countering the technologies of self-domestication, which increasingly rob humans of the ability to live independently, the Gardeners value self-discipline, self-sufficiency, and physical labor to fight against ignorance and laziness, the side effects of the convenient high-tech lifestyle. They realize that the more conveniences they enjoy, the more capitalist society controls their lives. In the story, although the Gardeners are a small group of people, the majority of them survive the disaster caused by the spread of the super virus and know how to construct a new way of life, in sharp contrast to the depressed and hopeless loner, Jimmy-Snowman.

The natural food-New Ark-laboring body assemblage may hold the key to countering the postfood system; however, it must transform itself in the face of large-scale disasters. In the future that Atwood depicts, because scientists are enthusiastic about inventing new animals, plants, and insects, the world is filled with new species. When all high-tech compounds collapse, humans must face the consequences of the creation of those post-nonhumans. Via *MaddAddam: A Novel*, Atwood raises the question of what we should do after we create posthuman bodies and post-nonhumans. Science and technology may offer solutions to all the inconveniences in our lives; however, the ethical problems created by new inventions generally remain unconsidered. By imagining a post-apocalyptic world, Atwood presents the possible consequences, where humans must cope with transgenetic life and the new species of animals and plants that they have no hope of controlling.

Whereas *The Year of the Flood*—with its storyline centered on life in the pleeblands, places in which common people live—provides a parallel story of the future world and thus supplements Jimmy-Snowman's perspective in *Oryx and Crake*, *MaddAddam: A Novel* offers a convergence of all the characters' perspectives and seeks to reconstruct a new life in the post-apocalyptic world. In the story, unlike Jimmy-Snowman, those MaddAddamites¹⁰ and Gardeners who survive the catastrophe learn the skills of hunting, animal husbandry, and scavenging; different from their ancient ancestors, however, they encounter new species of animals and plants. Their limited food choices force them to hunt pigeons, the pigs created to "grow an assortment of foolproof human-tissue organs" inside their bodies for the purpose of human transplants (*Oryx* 23). A pigeon is a Frankenanimal because it "could be reaped of its extra kidneys; then, rather than being destroyed, it could keep on living and grow more organs, much as a lobster could

¹⁰ The MaddAddamites are bioengineers who help Crake create Crakers in his Paradise project.

grow another claw to replace a missing one” (22-23). Those pigoon organs can also be customized, and it is not surprising that some of them have human neocortex tissue, as Manatee, one of the previous bioengineers in Crake’s Paradise project, notes (*MaddAddam* 19). Manatee hesitates to eat the “Frankenbacon” made from pigoons because they are splices of pig tissues and human tissue.

This episode is more significant when we conduct a parallel reading with the episode of the “Bonfire” in *Oryx and Crake*. Eating the last mango, the starving Snowman recollects a huge bonfire in his childhood. Ironically, the bonfire was “an enormous pile of cows and sheep and pigs” (*Oryx* 15-16). These animals’ legs “stuck out stiff and straight; gasoline had been poured onto them; the flames shot out, yellow and white and red and orange, and a smell of charred flesh filled the air” (*Oryx* 16). The smell reminds him of “the barbecue in the backyard when his father cooked things” (16). We learn later that these animals, which are experimental animals, are burned because they spread diseases. The bonfire, which is often associated with warmth and food, is turned into a medium for destroying animals that could offer meat for humans. Those experimental animals, also a product of blackboxing developed by advanced technology, are off-limits for human consumption because of the ethical controversies they created during Snowman’s childhood. After the catastrophic virus destroys the human world, humans have to eat pigoons, one of those experimental animals, in order to survive. Those animals are eventually sent to the bonfire again to become human food. However, the meat of pigoons, as Manatee notes, troubles him because it challenges the boundary between animal and human. Is it cannibalistic behavior to eat “pork” containing human tissue? The bonfire that Snowman remembers in his childhood foreshadows the ecological disaster caused by the unlimited invention of new black boxes: the fire that would destroy everything.

The kitchen tables of those MaddAddamites and Gardeners are the best area from which to observe the new relationship between posthuman bodies and post-nonhumans. Here, those MaddAddamites and Gardeners are referred to as the posthuman bodies because their bodies more or less co-evolved with high-tech life before the disaster occurs. Even if the Gardeners refuse to be associated with high-tech compounds, they attempt to adapt themselves to the high-tech life. In the post-apocalyptic world, it is impossible for the Gardeners to maintain their vegetarian lifestyle. Their meals are dependent on what they can find. On their breakfast table, Rebecca, their cook, fixes pork in three forms—bacon, ham, and chops—and prepares burdock root, dandelion greens, and dog ribs on the side (*MaddAddam* 34). In addition, without coffee beans, she uses dandelion roots to brew something like coffee. Toby’s lunch is “cold pork and burdock, with an Oreo

cookie from a package gleaned from a pharmacy” (41). Unable to abandon the eating culture of the past, they maintain the habit of eating meat along with salad and dessert.

Without restaurants and supermarkets, cooking is necessary. Cooking creates a safe distance between raw food and the dinner table. However, their menu looks unusual to many people. Dandelion greens are not common vegetables, and dog ribs would never show up on most people’s plates. The pork is not normal pork, not even normal meat, because it comes from pigeons. The food on their table comprises practical choices, reflecting the fact that the humans who have been self-domesticated now must learn how to live with the relics of civilization. Human interference with nature through advanced technologies has led to a blurring of the boundary between nature and culture. The boundary between the human and the nonhuman has also become increasingly unstable. Their food shows us how posthuman bodies are folding into post-nonhuman bodies, suggesting a new ethical relation: the posthuman bodies are becoming post-nonhumans because they are merging and intermingling with one another. Adam One once says, “We would not be Human if we did not prefer to be the devourers rather than the devoured, but either is a blessing” (*Year* 347). This is a herald of the future in which biotechnologies make the devourers and the devoured increasingly undifferentiated. Although the humans devour the nonhumans, they are also part of what is devoured. This new ethical relationship compels us to reconsider the questions involved in our posthuman future.

Conclusion

In her *In Other Worlds*, Atwood argues that she prefers the term “speculative fiction” to “science fiction.” For her, the latter refers to the stories about things which “could not possibly happen, such as H. G. Well’s *The War of the Worlds* (6). “Speculative fiction,” according to Atwood, “means plots that descend from Jules Verne’s books about submarines and balloon travel and such—things that really could happen but just hadn’t completely happened when the authors wrote the books” (6).¹¹ In her eyes, her imaginings of other worlds, the possible though unwanted worlds of the future, offer readers cautionary tales about what might happen if they are not sufficiently circumspect. The *MaddAddam* Trilogy showcases Atwood’s reflections on the unlimited development of technologies as she points out

¹¹ This differentiation between speculative fiction and science fiction involves a debate between Atwood and Ursula K. LeGuin. Atwood defends her use of speculative fiction here. For more details, see “Introduction” in *In Other Worlds*.

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in “*The Handmaid’s Tale* and *Oryx and Crake* in Context.”

The question “to cook or not to cook” is one of the issues tied up with technologies that might happen in the future. It is an easy question for modern people. Not to cook would not be a problem for the majority of modern humanity. It would be a serious problem, however, if humans were to suffer a shortage of food. In the *MaddAddam* trilogy, Atwood presents various possibilities regarding food issues. The rise and fall of the industrial food chain render prominent the question of cooking as an important factor in defining the post/human. By raising the issue of the relationship between humans and food, Atwood examines the development of extreme forms of technologies of self-domestication: if life is completely instrumentalized, what would be the consequence in terms of de-humanization? The Crakers represent an extreme form of the instrumentalization of life. Their desire to eat is reduced to the need for survival. When fire is no longer needed, the culture predicated on cooking and eating also disappears. They may provide a solution to the problem of the ecological crises caused by capitalist society, but is this de-humanized form of life what we want?

The question “to cook or not to cook” involves choices regarding what sort of subjectivity we would like to develop. Atwood’s answer, apparently, is that we should cook. As the ending of the story shows us, the Crakers choose to live together with the MaddAddamites and Gardeners. The new community is a mixture of new species, the people from high-tech compounds, and those who resist a high-tech life. Since humans have co-evolved with science to the extent that humans have become posthuman, it is unrealistic to dream of returning to a primitive way of life. The formation of this new community figures a posthuman future to come: the “post” in the term “posthuman” connotes not so much a supersession of variety as the becoming of something better.

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