Imperfect Creatures

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CHAPTER 5

What Happened to the Rats?
Hoard, Hunger, and Storage on Crusoe’s Island

Glory be to the verminous divine son of God.
—MICHEL SERRES

In 2011, the Nature Conservancy began a two-phase project to eradicate non-native animals that had been introduced in the seventeenth century to the Galapagos Islands and have been breeding ever since. After removing goats, cats, pigs, and burros, conservationists turned their attention to rats, whose population density had reportedly reached about one rat for every square foot on Pinzón, the main island. In what one newspaper describes as the “biggest raticide in the history of South America,” Ecuador began dumping twenty-two tons of poison, designed to kill eighteen million rats, eliminating (if all goes according to plan) the resident rat population by 2020. The ancestors of these doomed Galapagos rats, it is generally accepted, traveled from Europe and colonial South America on trading vessels and pirate ships, and there is strong evidence that, even in the early modern period, colonizing rats already were a significant problem. While there was considerable ambiguity, as we saw in the first chapter, about how rats were implicated in disease, their ability to destroy harvested grain and devastate food systems—especially aboard ships and on islands—was never in doubt. Indeed, European trading ventures and colonial aspirations depended, to a great extent, on (at least) battling vermin to a standstill. Not surprisingly, then, seventeenth- and eighteenth-century accounts dramatize these struggles, often restaging the metaphysical ravages of traditional plague literature, in a seemingly more secular key, as a series of biopolitical management crises. Robinson Crusoe similarly deploys vermin in this manner. Defoe
transforms them from the ubiquitous threats that slither and crawl through seventeenth-century plague writing to difficult but controllable populations, human and nonhuman; rats, birds, wolves, and hostile indigenes become subject to many of the same disciplinary technologies: traps, toxicants, repellents, barriers, and exclusion.

In the early-modern voyage narratives on which Defoe drew for Robinson Crusoe, rats run rampant. García de la Vega, as I noted in chapter 1, describes “the incredible multitudes of Rats and Mice” brought to Peru by the Spaniards. In a similar vein, Samuel Clarke recounts the history of a “great Plague” of rats that ravaged the first English plantation in Bermuda. In William Dampier’s accounts of his circumnavigations in the 1690s and early 1700s, rodents pose a dire threat to shipboard provisions. Leaving Cape Corrientes for the East Indies, Dampier describes the crew’s fear at having their meager provisions ravaged by shipboard rats: “we had not 60 days Provision, at a little more than half a pint of Maiz a day for each man, and no other Provision except 3 Meals of salted Jew-fish; and we had a great many Rats aboard, which we could not hinder from eating part of our Maiz.”

Dampier’s fellow buccaneer, Woodes Rogers, who preyed on Spanish shipping along the coasts of Peru and Chile in 1708–9, found that even when he stole grain, it was quickly “much damag’d by the [shipboard] Rats.” After Rogers rescued the Scots sailor Alexander Selkirk, marooned for three years on the island of Juan Fernandez off the Chilean coast, he described Selkirk’s living conditions. Selkirk was much pester’d with Cats and Rats, that had bred in great numbers from some of each Species which had got ashore from Ships that put in there to wood and water. The Rats gnaw’d his Feet and Clothes while asleep, which oblig’d him to cherish the Cats with his Goats-flesh; by which many of them became so tame, that they would lie about him in hundreds, and soon deliver’d him from the Rats.

Before Selkirk semidomesticates the cats as a kind of feline Swiss Guard, rats—reproducing, like the cats, “in great numbers”—threaten to eat him alive. Richard Steele retells Selkirk’s story but, in describing the rodent infestation, obscures the shipboard origins of both cats and rats: “His Habitation was extremely pester’d with Rats, which gnaw’d his Cloaths and Feet when sleeping. To defend himself against them, he fed and tamed Numbers of young Kitlings, who lay about his Bed, and preserved him from the En-
Particularly for Steele, a patriotic Englishman rather than a buccaneer, rats figure as “the Enemy” and mark the dark, even verminous side of an emerging global economy. Transported to islands, vermin disrupt native ecologies and become integral, if often threatening, components of a new biopolitical order.

The colonial fantasy of Crusoe’s island prosperity depends on the erasure of the threat posed by vermin: the rats that plagued Selkirk, marred Rogers’ pirated grain, and swarm, even three hundred years later, through the indigenous ecology of the Galapagos. Defoe mentions rats only three times in Robinson Crusoe, all of them in relation to a single bag of grain. Scouring his shipwrecked vessel for provisions, he finds “a little Remainder of European Corn which had been laid by for some Fowls which we brought to Sea with us, but the Fowls were kill’d; there had been some Barly and Wheat together, but, to my great Disappointment, I found afterwards that the Rats had eaten or spoil’d it all.” The bag of grain is chicken-feed; the shipboard fowl, intended as fresh food for sailors on transoceanic vessels, have perished in the shipwreck, have already been eaten, or perhaps have been killed by rats. It is only “afterwards,” that Crusoe discovers the bag of barley and wheat, then salvages the bag of corn that, he supposed, “was all devour’d with the Rats” (114). Seeing “nothing in the Bag but Husks and Dust,” he shakes it out (114). A month later, miraculously, as he emphasizes, Crusoe sees “some few Stalks of something green, shooting out of the Ground” (114). The providential preservation of grain against the threat of hungry rats leads to a meditation on the nature of this agricultural miracle:

for it was really the Work of Providence as to me, that should order or appoint, that 10 or 12 Grains of Corn should remain unspoil’d (when the Rats had destroy’d all the rest,) as if it had been dropt from Heaven; as also that I should throw it out in that Particular Place, where it being in the Shade of a high Rock, it sprang up immediately; whereas, if I had thrown it anywhere else at that time, it had been burnt up and destroy’d. (115)

Because grain seeds quickly succumb to moisture, whether rain or rodent urine, Crusoe attributes the fact that a few seeds remained “unspoil’d” to divine intervention. That the “Work of Providence” secures a suitable ecological niche for the seeds, protected from the effects of the tropical sun, reaffirms the values and assumptions of a colonial food system. Strangely,
however, the rats that helped themselves to the poultry feed seem simply to have disappeared when the ship washed aground. Unlike Selkirk, then, Crusoe is not “pester’d with” rats.

The near-empty bag of grain reminds us that Crusoe depends on a food system—men grow grain, grain feeds fowl, fowl feed men—extremely vulnerable to rodents, before and after the shipwreck. But that the rats are present only in their absence—in the traces of food they leave behind—leaves unanswered the question posed in my chapter title: what happened to the rats? Other animals prosper on Crusoe’s island, as they did on Juan Fernandez. Crusoe is surrounded by goats and cats, but unlike Selkirk, has no rats gnawing on his toes or, later, once he begins harvesting grain, eating his food supplies. This absence of rodents contrasts strikingly to other passages in his work, where Defoe cites historical accounts of rat infestations. In A Tour thro’ the Whole Island of Great Britain, he characterizes the Island of Rona in the Hebrides, as having been “destroyed” forty years earlier by “first, a Swarm of Rats, none knows how, [that] came into the Island, and eat up all their Corn. In the next Place, some Seamen landed, and robbed them of what Provisions they had left. By this means they all died.”

Indeed, given the 200 year history of rat infestations in European colonies, the seemingly deliberate erasure of rats on Crusoe’s island is noteworthy, if not cognitively jarring. Even if one wanted to credit Defoe with finessing the rat problem by populating Crusoe’s island with cats, the math is unconvincing. Cats produce two litters per year, with three to five surviving kittens per litter. At the end of Crusoe’s first year on the island, the cat population has grown to between fifty and one hundred cats. Rats, in contrast, are incestuous and interbreed; they produce litters of between ten and twelve offspring; the gestation period lasts only twenty-two days; females can come back into heat an hour after birth; and (unlike cats) they stay in heat all year round. At the end of six months, then, two shipboard rats and their offspring could have produced 77,960 rodents, overrunning the island and wreaking ecological havoc—turning Crusoe’s one-man colony into an eighteenth-century Galapagos. This difference in these reproductive rates is why Alexander Selkirk—while “preserved from the Enemy,” as Steele writes, by half-feral cats—was miserable, and why, unlike Crusoe, he was starving and impoverished when rescued. The agricultural economy of Crusoe’s island depends, in other words, not simply on the providential presence of European corn but on the absence of the rats that plagued Selkirk and the millions of others across the early
modern world, all struggling to protect their grain supplies against rodent infestation.

This point is crucial to understanding the ways that vermin figure in early eighteenth-century literature and its depictions of what we now would call ecology. As with Crusoe’s near-empty bag of grain, vermin (real and imagined) are entangled in ecosystemic relationships, ecologies variously characterized as evidence of humankind’s fallen nature—think back to Godfrey Goodman’s *The Fall of Man, or the Corruption of Nature*—or as proof of God’s benevolent design. Robinson Crusoe does something a little different. Defoe “exorcises” the “pestiferous” rats (as the 1651 anathema terms them) and populates Crusoe’s island with more perfect, more domesticable creatures: goats, a dog, cats, parrots, and human indigenes. Ultimately, the absence of rats reinforces John Bender’s view of the novel as “apparitional.” In producing a “coherent linguistic version of the real that never has been, is, or will be,” Bender argues, the novel creates “a virtual reality possessed of the organic wholeness that the contingency of the lived empirical world cannot possess.” To put Bender’s idea in ecological terms, the island’s imagined environment is not an open, dynamic ecosystem but a closed, zoomorphic world in which Crusoe hunts, gathers, farms, and stores under metaphysically secured conditions.

Within this context, the near-empty bag of rat, chicken, and human food serves a double function: while its mostly consumed contents point in the direction of a food system partly dependent on grain, the bag itself gestures toward a crucial, if seemingly pedestrian, aspect of that food system: the problem of storage. Although tool use on Crusoe’s island has received considerable attention, in the age before refrigeration proper food storage was often all that stood between a food-sufficient present and a harvestless future. Storage technology required the ability to imagine that future, to construct a calculus of future needs, and to protect against future shortages through managerial expertise. Because we live in a post-refrigeration culture, it is easy to “read over” the bag of corn in *Robinson Crusoe*; ideologically, we are trained not to perceive the threat of porous boundaries against vermin, moisture, and heat. The chewed-through bag of grain, though, for many eighteenth-century readers, underscores the vulnerability of food supplies. To reimagine that vulnerability, this chapter focuses on food insecurity in Defoe and how his ratless colony grows, through hoarding and proper storage, into an idealized system in which he defends his supplies from the vermin that threaten it.
Crusoe’s island has no large predators. The goats and cats multiply without hindrance, and, despite his persistent fears, Crusoe finds himself alone at the top of the food chain. In reflecting on Providence and the “long series of miracles” that cast him on the island, he recognizes that while he “ha[s] no society,” he, quite fortunately, encounters “no ravenous Beast, no furious Wolves or Tygers to threaten my Life, no venomous Creatures or poisonous, which I might feed on to my Hurt, no Savages to murther and devour me” (155). Given the absence of predators and “poisonous” creatures on the island, he can divide his efforts between animal husbandry and vermin control. The goats figure as a staple of his diet for twenty-eight years, but much of the novel’s drama derives from Crusoe’s culling the cats and fending off the birds that attack his grain.

One of the two female cats he rescued from the ship, having run away, returns with three kittens, engenders a population explosion; the cats multiply and annoy him until he “was forc’d to kill them like Vermine or wild Beasts” (133). The fact that he exterminates them “like” vermin suggests how arbitrary boundaries are between different species of animals. Whereas Selkirk “cherish[ed]” his cats with goat meat to protect him from omnivorous rats, Crusoe’s cats quickly lose their shipboard use-value—controlling rodent infestations that threaten grain supplies—once Crusoe brings them ashore. Without rats to control, the cats themselves become a type of “Vermine” that stand in sharp contrast to the unnamed (and solitary) dog. Rather than pestering him, the dog, says Crusoe, “was a trusty Servant to me many Years; I wanted nothing that he could fetch me, nor any Company that he could make up to me, I only wanted to have him talk to me, but that would not do” (105). If the dog, in effect, is Friday’s predecessor as a companion and servant, the proliferating cats exist outside of this kind of companionate interspecies relationship: they cannot hunt for Crusoe, as the dog does; they cannot fetch what he wants; and they do not provide him with domesticated “Company.” Extraneous to the ratless island’s economy, the cats may offer a form of resistance to Crusoe’s “ideological superiority,” as Rajani Sudan has argued, posing a “continual threat to the integrity” of his rule over the island. In terms of his food supply, however, they are primarily a nuisance.

A more direct threat to the hero’s sense of well-being comes from the birds indigenous to the island, which compel Crusoe to draw on familiar
strategies of vermin control to protect his grain. Page after page in Robinson Crusoe deals with his efforts to turn the few seeds he salvaged from the ship into a sustainable crop that he can mill to produce a gustatory reminder of England—white bread. While growing barley and rice, Crusoe charts the advent and duration of the two rainy seasons each year, and he conducts ad hoc experiments to determine the best times to plant his grain crop (at the beginning of each of the rainy seasons). These efforts make him, at least in his own mind, “Master of [his] Business”; he knows “exactly when the proper Season was to sow; and that I might expect two Seed Times, and two Harvests every Year” (135). Part of this mastery turns on his ability to keep devastating animals away from his delicate crop. Crusoe deploys the dog to protect the fledging shoots from goats and hares—“he would stand and bark all Night long” (143)—but the invading birds pose a greater menace, just as they did in England. Indeed, Crusoe’s response to the birds recalls the kinds of policies against vermin still being enacted in his homeland. As Keith Thomas notes, vermin hunts mandated under the 1533 Acts of Parliament continued into the eighteenth century; in the late seventeenth century, the widespread use of guns replaced the use of nets and traps. Crusoe’s initial tactic of vermin control is to use his gun. Yet when he shoots at the birds in the trees, “there rose up a little Cloud of Fowls, which I had not seen at all, from among the Corn it self” (143). Alarmed, and with his crop already partly despoiled, Crusoe turns to a kind of a Foucauldian exercise, criminalizing the birds determined to invade his property. He deals with the dead birds “as we serve notorious Thieves in England”: their bodies are “Hang’d . . . in Chains for a Terror to others” (143). This stratagem works so well that the birds “forsook all that Part of the Island, and I could never see a Bird near the Place as long as my Scare-Crows hung there” (143). Crusoe’s juridico-political language underscores the extent to which the island’s birds are imagined as a criminal threat to property rather than regarded as part of a complex ecological order. Not surprisingly, then, his solution is as much political as it is environmental.

While Crusoe’s fear of wolves and cannibals understandably has attracted the lion’s share of critical attention, it is worth considering in more detail what is at stake in his efforts to drive away the birds. Ostensibly, Crusoe takes such deadly measures because the birds “in a few Days . . . would devour all my Hopes, that I should be starv’d, and never be able to raise a Crop at all” (143). The image of (future) starvation harks back to Crusoe’s initial fears when he was shipwrecked, and it serves as one of the hero’s charac-
teristic moments of writerly amnesia, seemingly contradicting what he had written a few pages earlier: “I had no Want of Food, and of that which was very good too; especially . . . Goats, Pidgeons, and Turtle or Tortoise; which, added to my Grapes, Lead-en-hall Market could not have furnish’d a Table better” (138). Indeed, Crusoe’s feasts of goat, pigeon, turtle, and grapes surpass what a Londoner of the middling sort might have considered a hearty meal. The corn crop, however, becomes precious for two reasons. First, it allows Crusoe to replicate more closely a kind of emblematic English meal of meat and bread—an ideological marker of his domestication of the island. Second, the grain (unlike meat and fruit) allows Crusoe to safeguard his food supply from contingencies and weather patterns; animal flesh and seasonal fruits offer a good deal of food security, but the grain can be stored for long periods of time. The corn crop therefore becomes a practical as well as talismanic safeguard against the hero’s isolation and the uncertain future he faces.

Provisioning supplies to guard against real and imaginary food threats is an adaptive strategy common to human and nonhuman animals alike. Animal ethologists use the term “food hoarding” to describe the characteristic behaviors of secreting and storing food for future use.20 As Stephen Vander Wall writes, “Food-hoarding animals have the capacity to control the availability of food in space and time. . . . By permitting animals a measure of control over their food supply, food hoarding has become an important element in adaptive strategies for circumventing problems of food limitation.”21 In the novel, Crusoe’s hoarding signifies both the acknowledgement of food insecurity and the exercise of what seventeenth-century commentators would have regarded as an act of corporeal imagination. The root of provision is provi-dere, Latin for “foresee”; as its etymology suggests, provisioning turns on acts of imagination, of vision.22 In English, “provision” can serve as a verb (the act of supplying beforehand) or as a noun (that which is supplied). Outside the Cartesian tradition, various animals were described as capable of anticipating future needs and responding appropriately through acts of embodied imagination. Bacon invokes this faculty in Sylva Sylvarum to explain how bees can find their way back to a hive located two or three miles away, and both Thomas Willis and John Locke make analogous arguments for other creatures. While Willis identifies imagination in “less perfect” beings as instinctive, he argues that a corporeal imagination—closely related to memory—operates in higher mammals: it drives a “hungry Horse” from “place to place, till he has found our imagined Pasture, and indeed enjoys that good the Image of which
was painted on his brain.”23 For his part, Locke acknowledges that in terms of memory—“the faculty of laying up and retaining the ideas that are brought into the mind”—other “Animals seem to have to a great degree [of that capacity] as well as man.”24 Put simply, (human) “provisioning” is (animal) “hoarding” restituted from an ecological to an economic discourse.

The close relationships among provisioning, hoarding, food insecurity, and imagination perhaps help explain why in Defoe’s fiction, from Robinson Crusoe on, the accumulation of food against future contingencies seems, at once, prudent, nearly compulsive, and almost totemic, a strategic warding off of psychological distress and channeling deep-seated fears into seemingly productive activities.25 In popular language, North Americans use the word “hoarding” to describe the pack-rat behaviors of humans who refuse to take for granted an (ostensibly) always-available supply of food, who store up excessive supplies against an imagined future dearth. Whether or not one is a hoarder is determined, in part, by whether or not others agree on whether one’s provisioning is timely and measured. At stake in the behavior is never a simple economic principle of accumulation, stripped from any context, but a mixed set of social, psychological, and biological strategies of adaptation to an unpredictable environment. Many of Defoe’s works, before and after Robinson Crusoe, contain extended accounts of elaborately designed and executed strategies of food storage, and these may attest to differences between our food system and his. In Due Preparations for the Plague, for example, Defoe describes the survival of a family in Marseilles during the devastating plague of 1665 when two-thirds of the city’s population succumbed to infection. The head of the family, a merchant, furnished himself “with Stores of all sorts of Provisions,” including “three Thousand Pound Weight of Biscuit Bread such as is Bak’d for Ships going to Sea, and had it put up in Hogs-heads, as if going to be shipp’d off.”26 In addition to bread, wine, and herbs, the magazine also included the “Flesh” of “three Fat Bullocks,” “Pickl’d and Barrel’d up, as if done for a Ship going on a long voyage; likewise six barrels of Pork for the same pretended Occasion” (68–69). The merchant and his family survive by treating their predicament as though they were pressed to endure the isolation and dietary self-sufficiency of an extended sea voyage. They eat what sailors in the early eighteenth-century ate—hardtack and pickled meat, both provisions that have incredibly long shelf-lives. Defoe presents the merchant’s preparations as an emblem of both his foresight and his moral virtue.

The strategies that allow the Marseilles family to survive the plague are a
staple of Defoe’s fiction in which different degrees of food insecurity are part of the human condition. In Robinson Crusoe, the hero describes his chief employment as curing his raisins, then planting barley and rice, his goal being to have a “good Quantity” of bread “for Store, and to secure a constant Supply” (144). After a while, he devotes himself almost exclusively to bread making, employing all his “Study” and “Hours of Working” in creating the fences, instruments, and utensils required for bread making and seed storage, by which Crusoe imagines he can control an always uncertain future. 27 Crusoe’s compulsive food-hoarding and the merchant’s plague preparations reappear in different guises elsewhere in Defoe’s work, often in relation to severe climatic conditions. In Farther Adventures of Robinson Crusoe, Crusoe describes long-term planning as a necessary strategy to cope with the Siberian winter: “Our Food was chiefly the Flesh of Deer dry’d and cured in the Season; good Bread enough, but bak’d as Biskets; dry’d Fish of several Sorts. . . . All the Stores of Provision for the Winter are laid up in the Summer, and well cur’d” (208). Salting and drying meat become a mark of prudence and, almost invariably in Defoe, an occasion for economic moralizing. In his final novel, A New Voyage Round the World, Defoe’s sailors spend thirteen days on Juan Fernandez—Selkirk’s island—to supply the ship for a cruising (or really privateering) voyage along the coasts of Chile before sailing south and east around Cape Horn and into the Atlantic. During their stay on the island, they “kill’d three hundred and seventy goats”; and the unnamed narrator tells us, “our Men who were on Board [the ships] were very merrily’d employ’d,” and “did very little but roast and stew, and broil and fry from Morning to Night.” 28 During the voyage proper, sailors kill cows, goats, deer, seals, and penguins, then salt the meat in order to season and preserve it. These preparations turn necessary fare into, as the narrator says of salted penguin, “a very wholesome Diet” (226). Food production for the voyage requires what Defoe calls “an exceeding Supply” (142) of all kinds of provisions, provisions that serve as insurance against the hardships that befell ships on transoceanic voyages. At sea and on land, such provisioning is a measure of moral probity and economic utility extending far beyond Crusoe’s island.

“Reason” is the name Defoe gives to the economic logic behind his high-level food-hoarding activities, and he takes great pains to distinguish his responses to food insecurity from the presumably instinctual behavior of other species. While both humans and animals, as we have seen, can defer pleasure for the sake of a perceived future safety, Defoe declares that without
the supplementary capacity of reason, humans would perish in a postlapsarian world of scarcity and Hobbesian aggression. “MAN,” he writes in *Essays upon Several Projects*, “is the worst of all God’s Creatures to shift for himself”:

no other Animal is ever starv’d to death; Nature, without, has provided them both with Food and Cloaths; and Nature within, has plac’d an Instinct that never fails to direct them to proper means for a supply; but Man must either Work or Starve, Slave or Dye; he has indeed Reason given to direct him, and few who follow the dictates of that Reason come to such unhappy Exigencies.  

While Defoe presses this presumed contrast between humans and other animals into the service of an argument about the importance of savings and pensions, it also describes the situation in which Crusoe finds himself: even with the benefit of an environmentally hospitable and rodent-free island, Crusoe must “Work or Starve.” While he may share hoarding behaviors with rats, the complexity of Crusoe’s food-hoarding behaviors is, according to the logic of the novel, animated by the dictates of God-given reason and evidence, as Willis might put it, of a rational, rather than merely sensitive, soul. The role of technology in distinguishing human reason from animalistic instinct is underscored in *Mere Nature Delineated; or, a Body Without a Soul*. Unlike other predators, Defoe writes, a human has no teeth or claws to “tear and devour.” Instead, says Defoe, God, “to supply all these by the Authority of his Person,” provides man with a techno-physiological advantage: “an Awe of him is placed upon the Beasts and he has Hands given him, first to make, and then to make Use of, Weapons, both to rule [animals] for his Safety, and to destroy them for his Food.” In such instances, Defoe sounds very much like Willis, for whom human difference is defined almost exclusively in terms of some presumably intrinsic Crusoean ingenuity: “Brutes know not Rights or Laws of Political Society,” Willis asserts, “they make no Fires or Houses, nor find out any Mechanical Arts, they put not on Clothes, nor dress their food, yea unless taught by Imitation.” Defoe’s version of this argument in *Mere Nature Delineated* is that human exceptionalism rests in tool use, without which, he insists, humans “will either be torn with wild Beasts (even Dogs would devour [them]) or [they] would be frozen to Death with Cold, or drench’d to Death with Water and Rain” (7). Indeed, the morphology of the human body—its lack of the sharp teeth and claws of predators—demonstrates that humans are superior to other creatures;
human anatomy “denies them the Honour of being Beasts in Form,” he continues, “and in the ordinary Functions of sensitive Life, whatever they will be in practice” (12). From this perspective, Crusoe’s gun and knife, in particular, are crucial to his efforts to establish and maintain his species identity as well as his sense of a civilized selfhood. Echoing a sentiment in *Mere Nature delineated*, Crusoe insists on the importance of the knife in distinguishing him from “savages” and “beasts”: “I should have liv’d, if I had not perish’d, like a meer Savage. That if I had kill’d a Goat, or a Fowl, by any Contrivance, I had no way to flea or open them, or part the Flesh from the Skin and the Bowels, or to cut it up; but must gnaw it with my Teeth, and pull it with my Claws, like a Beast” (53). In this imagined scene, cutting, as Derek Hughes claims, “divides man from the beast.”

And yet, this presumed difference—like that between “hoarding” and “provisioning”—is notoriously unstable. From a broader perspective, Defoe’s human is more properly defined, in Michel Serres’s phrase, as “the master of mediations,” using traps, nets, guns, spears, horses, dogs, and “Scare-crows” to assert dominance over other species. Being “Master of every Mechanick Art” also means transforming the food supply so that what one eats no longer resembles the food of beasts. Defoe argues in *A General History of Trade* that animals are “not to be Devoured, as one Wild Beast Devour[s] and Prey[s] upon another, but to be Kill’d, separated from the Filth, Blood, Hide, and Uneatable Parts, and then Prepar’d, Drest, and made Palatable.”

According to Defoe, the “meer Savage” and the “Beast” are incapable of separating the edible “flesh” from the inedible “skin” and “bowels” of their prey. Whereas they take their food as they find it—bleeding and raw—civilized “man,” in Defoe’s writing, eats animal flesh only after it has been cooked or “dressed.” Cutting, then, occupies a place along a spectrum of other transformations: fish are dried and salted; cows are pickled; and goats, deer, and even penguins, are salted and preserved. At times, Defoe turns these dietary practices into an admonition. In *Due Preparations*, Defoe insists civilized humans must avoid eating meat that is “almost Raw,” a predilection he associates with “Tartars,” cannibals, and dogs (44). He tries to shame his fellow Britons about their less than civilized tastes:

[If we were but to be seen by the People of any other Country how we Eat, especially our Wild Fowl, the Flesh scarce warm thro’, and all the undigested Impurities of the Entrails and Inside of them serving for our sauce. I say, when Strangers see us feeding thus, they must be allowed]
to take us, as they do, to be, if not Canibals, yet a sort of people that have a canine Appetite; and it was the modestest Thing I could expect of them, when in Foreign Countries I have heard them describe our way of Feeding in England, and tell us that we Devour our meat, but do not Eat it; viz. Devour it as the Beasts of Prey do their Meat with the Blood running between their Teeth. (44-45)

Such passages about feeding practices have a double function in Defoe’s works: they scold his countrymen and women for their brutish, “canine” appetites and they try to reinforce distinctions between the “raw” and the “cooked,” between “savage” and “civilized” behavior. Ethnic distinctions—Englishmen versus cannibals—are entangled in the logic of species differentiation.  

Much of Robinson Crusoe, correspondingly, is concerned with a range of domestic duties: planting, harvesting, drying, curing, weaving, roasting, and baking (157). So central is provisioning to Defoe’s psycho-economics that Crusoe builds up supplies despite the God-given sustenance that the island provides: “I had great Cause for Thankfulness, that I was not driven to any Extremities for Food; but rather Plenty, even to Dainties” (138). Having secured his grain against goats, hares, and birds, Crusoe is able to produce “forty Bushels of Barley and Rice” at each harvest, “much more than I could consume in a Year.” Yet this surplus is treated as an unmitigated good, a sign of his prosperity and security. Forecasting the likely return for his labor, Crusoe decides “to sow just the same Quantity every Year, that I sow’d the last, in Hopes that such a Quantity would fully provide me with Bread, &c.” (148). The “&c.” is suggestive; if we take Crusoe at his word, he is harvesting each year “much more” than he eats, and his supplies, therefore, are increasing annually. His grain stores become emblematic of the rationalized status of food hoarding on the island; overproduction is not only a mark of prudence but of providential favor, particularly in the years before Friday’s appearance.

For us, Crusoe’s planting, provisioning, and hoarding may verge on a compulsive set of behaviors; J. M. Coetzee’s redaction of the hero in Foe (1986) focuses on the less-productive but just as obsessive terrace building. But these practices allow Crusoe to solve—at least fictionally—a critical problem in early eighteenth-century England. The provisioning of grain was, in the words of one historian, “among the most serious of problems faced by local and state government in preindustrial England.” Because a
bad harvest or difficult winter could cause prices to double within a mat-
ter of months, grain storage was a hotly contested political issue that of-
ten pitted grain merchants against the poor, artisans living in towns, and
those, in general, who did not grow their own food. Grain prices and bad
weather were problems intermittently throughout the seventeenth century.
As Defoe’s contemporary, Charles Davenant, wrote, “in England, in a plen-
tiful years, there is not above five months stock of grain at the time of the
succeeding harvest, and not above four months in an indifferent year, which
is but a slender provision against any evil accident.” Compounding this
problem of “slender provision” was wastage: an estimated twenty to thirty
percent of grain supplies, even during a good year, were lost to smutting
and rodents. On Crusoe’s island, however, provisioning against an “evil ac-
cident” seems to lessen the prospect of disaster each year because the hero’s
supplies show net increases that ensure his prosperous, if isolated, future.

While Crusoe’s penchant for storing more than he can consume car-
rries Reason to ecological and economic extremes, it exhibits the paradoxical
logic of food-hoarding underwriting mercantile capitalism: through excess,
moderation. Even as Crusoe continues to grow his food reserves, he admits
his “thoughts run many times upon the Prospect of Land, which [he] had
seen from the other Side of the Island” (148–49). The surplus Crusoe builds
year after year attests to the animal foresight that Defoe depicts as uniquely
human. In this regard, provisioning constitutes the precondition, means,
and ends under which “the human” fully, if tautologically, emerges. Through
hoarding, Crusoe arrives at a humanity denied to vermin, predators, and the
savages who invade his island.

“Hunger Knows No Friend”

Robinson Crusoe’s adventures do not end when he leaves the island. Several
months after Defoe published the Strange Surprizing Adventures, the sequel,
The Farther Adventures of Robinson Crusoe (1719) appeared. Through the
day of the nineteenth century, the Farther Adventures was reprinted regu-
larly with the first volume and had a significant publication history in its
own right. After seven years in England, Crusoe and his nephew board a
merchant ship bound for the East Indies, with the intention to stop at his
“Colony” off the coast of northern South America on the way and resupply
it with skilled tradesmen and provisions. En route, they encounter an Eng-
lish ship, driven from Barbados “a few Days before she was ready to sail, by a terrible Hurricane” (21), so before it was fully staffed and provisioned. With its masts severely damaged and its captain and first mate on shore, the ship’s skeletal crew has no way to navigate. By the time Crusoe finds them, the crew and their passengers have had no “Bread and Flesh” for at least eleven days. Hearing this tale from the second mate and six sailors who make their way to his vessel, Crusoe resolves to visit the stricken ship and see the “Scene of Misery” for himself. There he encounters a tableau out of seventeenth-century famine literature. The three passengers, a “Youth and his Mother and a Maid-Servant,” having been left for dead in their cabin, are in a “Condition that their Misery is very hard to describe” (22). Nonetheless, Crusoe’s relation goes on at some length and furnishes his readers with a gruesome object lesson in what happens when provisions are destroyed.

The “poor Mother,” a woman of sense and “good Breeding,” sits on the floor, her back to the wall and her “Head sunk in between her shoulders, like a Corpse, tho’ not quite dead” (24). She revives briefly when she is given some broth, but only to indicate by “Signs” that they should minister to her starving child instead. Her son, who “was preserv’d at the Price of his most affectionate Mother’s Life,” lies in a bed with a piece of old glove in his mouth, “having eaten up the rest of it” (24). The starving maid sprawls on the deck beside her mistress “like one in the last Agonies of Death” (25); terrified by the prospect of her demise, the maid is nevertheless “brokenhearted for her Mistress, who she saw dying two or three Days before, and who she lov’d most tenderly” (25). Such graphic images of starvation, as we have seen in plague literature, were often deployed theologically to remind humans of their intrinsic corruption and the prospect of eternal suffering. Here, in contrast, the passengers and crew on the foundering ship are victims of misfortune rather than perpetrators of excess or evil. In fact, emphasizing the contingent, even arbitrary, nature of their suffering, Crusoe describes the victims as the most “innocent” creatures on the ship: a “poor Mother” willing to die for her son, a “well-bred Modest and sensible Youth,” and a “poor Maid” (24, 25).

Even before Crusoe returns to the island, then, this horrific scene emphasizes the fundamental truth of shipboard travel and even everyday life: that food supplies are always contingent, subject to spoilage, bad luck, bad weather, and vermin. And because the maid and mother are “innocents,” Defoe reintroduces, in a different context, the moral function of proper provisioning: to preserve the fragile boundary between savage and civilized behavior.
Under the conditions that Crusoe finds on the stricken ship, the characters’ humanity, rather than their faith, is put to the question. The mother demonstrates her willingness to preserve her son by her own deprivation, but for Defoe, such self-sacrifice cannot be taken for granted. Indeed, much later in the narrative, the maid provides an extended account of her struggles with starvation and her powerful impulse towards self-preservation. Right before he leaves the island for good in the middle of *Farther Adventures*, Crusoe interrupts his narrative to allow Susan, the maid, to tell “one Story more” about her ordeal (115). Deprived of broth, bread, or even an old glove, Susan relates in horrifying specificity the suffering that culminates in an impulse to eat human flesh and drink human blood. During five days without food, she descended through “very great Hunger,” through “the extremity of Famine,” and to a grim cycle of affliction: “sick, sleepy, eagerly hungry, Pain in the Stomach, then ravenous again, then sick again, then lunatick, then crying, then ravenous again” (117). Describing herself as “twice raging mad as any Creature in Bedlam,” she falls down, striking her nose against a bed; some of her blood is captured in a nearby basin. The next day, in a fit of “violent Hunger,” she almost turns cannibal: “I got up ravenous and, in a most dreadful Condition. Had my Mistress been dead, as much as I loved her, I am certain, I should have eaten a Piece of her Flesh, with as much Relish, and as unconcerned, as ever I did the Flesh of any Creature appointed for Food; and once or twice I was going to bite my own Arm” (117). Instead, however, of declining into the “savagery,” Susan catches sight of the basin with her blood in it: “I ran to it, and swallow’d it with such Haste, and such a greedy Appetite, as if I had wonder’d no Body had taken it before, and afraid it should be taken from me now” (117). Although soon the thought of drinking her blood “fill’d [her] with Horror,” she admits that “it check’d the Fit of Hunger, and I drank a Draught of fair Water, and was compos’d and refresh’d for some Hours after it” (117).

Although Willis and others argued that blood (and especially blood of the “more perfect creatures”) was a valuable source of nutrition, Susan’s compulsion to drink her own blood both preserves her life and marks her descent into bestial behavior.44 One moral of her gruesome story seems to be that the exogamous, highly mediated eating practices that characterize civilized behavior are themselves partially dependent on food security having been ensured. Defoe repeatedly stages, in different and often empathetic ways, dramatic scenes of near-starvation, the extreme and difficult choices they provoke, and how “ravenous” eating must be modu-
lated through what he sometimes calls “self-command.” In this case, the starving sailors are described as “ravenous”: the men “rather devour’d than eat [the food]; they were so exceedingly hungry, that they were in a kind ravenous, and had noCommand of themselves; and two of them eat with so much Greediness, that they were in Danger of their Lives the next Morning” (22). But the mother, her son, Susan, and the starving crew also illustrate a lesson about the nature of compassion. The “Sight of these Peoples Distress,” Crusoe writes, “was very moving to me, and brought to Mind what I had a terrible Prospect of at my first coming on Shore in the Island, where I had neither the least Mouthful of Food, or any Prospect of procuring any; besides the hourly Apprehension I had of being made the Food of other Creatures” (23). Now, however, his own ship properly provisioned, Crusoe characterizes the foundering boat as a “Subject for our Humanity to work upon”; it offers an opportunity for him to exhibit his fellow-feeling and generosity, sharing with the passengers a substantial portion of his well-stocked magazine without expectation of profit or reward (21).

Indeed, food insecurity, whether through bad luck or bad judgment, undermines one’s ability to sympathize or empathize with the suffering of others. Several times during the voyage back to his island, Crusoe absolves the famished sailors of blame for having abandoned the three passengers to starvation or at least tries to justify their actions by emphasizing their equivalent “Distress”: “The Seamen being reduced to such an extreme Necessity themselves had no Compassion, we may be sure, for the poor Passengers” (22). A few paragraphs later, he reports the Mate’s confession that the crew had “wholly neglected” the passengers only because “their own Extremities [were] so great” (23). This qualified absolution establishes a causal relationship between a lack of compassion and a lack of food. Crusoe again reinforces the point when, at the end of the scene, the seventeen-year-old son begs to be taken aboard Crusoe’s ship, claiming that the “cruel Fellows had murther’d his Mother” (25). Crusoe agrees with him, but mitigates any sense of moral culpability on the part of these “cruel Fellows”:

And indeed so they had [murdered the mother], that is to say, passively; for they might ha’ spar’d a small Sustenance to the poor helpless Widow, that might have preserv’d her Life, tho’ it had been but just to keep her alive. But Hunger knows no Friend, no Relation, no Justice, no Right, and therefore is remorseless, and capable of no Compassion. (25)
In one respect, Crusoe’s generalization about the nature of hunger is contradicted by what he finds on board the ship: the mother, after all, had sacrificed her own life to preserve her son’s. But his grim observation—“Hunger knows no Friend”—also underscores, in dramatic fashion, his view that there is often a gap opened by the demands of the corporeal soul for food and the desires of the incorporeal one to embrace humane and civil virtues: kinship, justice, and compassion. One’s “humanity” is determined by the choices one makes within a world sometimes, if not usually, characterized by the breakdown of sociopolitical, technological, and cultural relations that themselves depend on the cultivation, proper storage, and distribution of food.

PREDATORS, BEES, AND PLANTATION POLITICS

For Defoe, as for his contemporary Bernard Mandeville, all creatures are driven by appetite, although the force and quality of that drive is species specific. The “fiercest Appetite that Nature has given [animals] is Hunger,” Mandeville asserts. “Nature” has endowed “Beasts of Prey” with a “much keener Appetite” than herbivores—a fierce desire (akin to sex) leading them to “crave, trace, and discover” “good Food,” along with an instinct “that teaches them to shun, conceal themselves, and run away from those that hunt after them.” Competing needs for food and safety mean that predators often go about with “empty Bellies”—with an appetite that “becomes a constant fuel to their Anger” (cv). Mandeville’s ravenous predators, driven by their “piercing” hunger and forced to “fatigue, harass and expose [themselves] to Danger” (civ) for every bite, have much in common with the “beasts of prey” appearing throughout the Crusoe trilogy. At the end of Robinson Crusoe, Friday wrestles a bear in the Pyrenees, after which he and Crusoe drive off a pack of wolves. In both episodes, Defoe emphasizes the predators’ hunger: although men are rarely the “proper Prey” of bears, their behavior is unpredictable when driven by hunger (275); the wolves come down from snow-covered mountains into bordering forests and towns when their empty stomachs require them to hunt for prey. Being “excessively hungry and raging on that account,” “furious” wolves, incited by the smell of the horses, have become “sensless of Danger” and are only with difficulty killed or driven off by volleys of gunfire. Crusoe, in contrast, says, “I was never so sensible of Danger in my Life”: “seeing above three hundred Devils come roaring and
What Happened to the Rats?

open-mouth’d to devour us, and having nothing to shelter us, or retreat to, I gave myself over for lost” (282). After escaping the wolves, he vows never to return to those mountains, claiming that he had rather “go a thousand Leagues by Sea, though I was sure to meet with a Storm once a Week” (282). What Crusoe describes in the Pyrenees is a weather-sensitive system populated by opportunistic carnivores sometimes driven by uncontrollable appetites. The violence of encounters between hot-blooded creatures (human or otherwise) is precisely what his colony, with its nascent infrastructure of agriculture and storage, is intended to prevent.

In *Farther Adventures*, Defoe recasts the dynamics of hunger, predation, and vermin control under the ideological shadow of a colonialist enterprise. At the end of the first volume of the trilogy, Crusoe had left behind on the island seventeen Spaniards, five Englishmen, Friday’s father, six slaves, some women, and a few firearms. In his absence, this fledgling colony is forced to deal with the arrival of two hundred and fifty Indians. Defoe’s lengthy description of this encounter (as it is described to him) emphasizes the ways in which these “invaders” threaten fragile food systems and supplies. In the first two counterattacks, the colonists kill or wound about 180, then burn the canoes, fearing that the survivors (much like shipboard rats) would return with “multitudes” to “desolate the Island, and starve” the Europeans (69). Even after their victories, the colonists remain confronted by seventy or so fearful, desperate, and hungry men roaming the island, “like wild Beasts,” damaging crops and property (70): they “trod all the Corn under-foot; tore up the Vines and Grapes, being just then almost ripe, and did to our Men inestimable Damage” (70). The colonists, with “their Provision . . . destroy’d, and their Harvest spoile’d,” find themselves in “very bad Circumstances,” with no idea “what to do, or which Way to turn themselves” (71). Drawing an explicit parallel between the scavenging Indians and the vermin that threatened him and his first grain crops more than thirty years earlier, Crusoe recasts the plight of the colonists in terms of both infestation and predation: “I look’d upon their Case to have been worse, at this Time, than mine was at any Time, after I first discover’d the Grains of Barley and Rice, and got into the Manner of planting and raising my Corn, and my tame Cattle; for now they had, as I may say, a hundred Wolves upon the Island, which would devour every Thing they could come at, yet could hardly be come at themselves” (71). Significantly, although Crusoe’s language recalls his encounters with wolves, carnivorous predators, at the end of *Strange Surpriz-
Linking the Indians to vermin, Crusoe’s struggling colonists recast agricultural and ecological threats—in this case, crop destruction—as a military problem with a two-step solution: violence to terrorize and starve the surviving Indians, and subsequent managerial control to produce docile dependents. Having “daily hunt[ed] and harass[ed]” the Indians, killing as many as “they could come at, till they had reduced their Number” (71), the colonists drive the survivors to the island’s “hollow Places” where they live hungry and miserable; “they reduced them to the utmost Misery for want of Food, and many were afterwards found dead in the Woods, without any Hurt, but merely starv’d to Death” (71). The second-generation colonists treat the Indians much as Crusoe treated the goats and cats during his first stay on the island, subjecting them through controlled starvation and tactical reward. Thus, with their lives and food supplies no longer threatened, the colonists, moved by pity, offer the remaining Indians a part of the island to inhabit, corn to plant, and some bread to keep them alive until they can harvest their first crop. In return, the Indians are forced to “keep in their own Bounds” and “not come beyond it to injure or prejudice others” (72). Coerced into becoming primitive agriculturists, supplied with bread, rice cakes, three live goats, and later knives and other tools, the thirty-seven remaining “Wretches,” “confin’d to a Neck of Land, surrounded with high Rocks behind them” (172) lived as “the most subjected innocent Creatures that were ever heard of” (73). Crusoe banished the rats, culled the cats, drove off the crows, and tamed the goats in the first volume; employing similar strategies in the second, the colonists humble and make “tractable” potentially verminous humans, eventually teaching them, as he says, “how to plant and live upon their daily Labour” (172)—that is, how to accept integration into the plantation economy.48

Crusoe’s insistence that the formerly verminous Indians have achieved, through farming, a kind of innocence is in keeping with seventeenth-century agricultural treatises that characteristically invoked an entire bestiary to describe the significance, naturalness, and moral superiority of farmers’ labors. Abraham Cowley, in his influential essay, “On Agriculture,” declares that farmers “live upon an estate given them by their mother . . . like sheep and kine,” in contrast to “others” (presumably city dwellers and civil servants) who live on resources “cheated from their brethren . . . like wolves and foxes,
by the acquisitions of rapine." Cowley’s imagery anticipates the logic of Crusoe’s colony, where the major structuring difference between producers and consumers is figured in animal terms; indeed, Cowley’s distinction between “useful” and “pernicious” members of the human-animal kingdom operated as a familiar—almost clichéd—basis for seventeenth-century writers to imagine an efficient and self-regulating agricultural economy. The theologian and mathematician Isaac Barrow linked predators and vermin in his posthumously published work, *Of Industry*, declaring that “a noble heart will disdain to subsist like a drone upon the hony gathered by others labour; like a vermine to filch its food out of the publick granary; or like a shark to prey on the lesser fry; but will, one way or other earn his subsistence; for he that doth not earn, can hardly own his bread.” For Barrow, drones, vermin, and sharks are alike in their apparently willful refusal to “earn” their “bread” by working willingly for a communal good as well as for personal benefit; Defoe simply provides a primer for how, on a global scale, human vermin can be transformed in ways that make possible the colonial ideal of “innocent” and beneficial labor.

And here one finally encounters bees. Whereas the teeming, thronging, and swarming movements of hungry crows, cannibals, and wolves threaten Crusoe’s well-being, bees and their spatially organized hives helped to define, for him as for others, a cultural ideal of provisioning, prosperity, and political order. Impressed by the design and construction of the now-pacified Indians’ highly efficient basket houses, the colonists, before Crusoe returns to the island, “got the wild Savages to come and do the like for them” (73). Crusoe reports on his arrival that the “two English Mens Colonies . . . look’d, at a Distance, as if they liv’d all like Bees in a Hive” (73). This simile draws upon the long tradition of georgic literature, going back to Hesiod, in which bees were cast as Nature’s artificers, capable of producing their own government. As Danielle Allen has argued, “in all periods, the bees’ hive was used to exemplify perfect political order, whether that was taken to be monarchical (Virgil), communitarian (Christian writers), or egalitarian (some French revolutionaries).” Pliny, Aristotle, and Virgil had sung the praises of the bees for their sense of government in subordinating individual desire to the common good. Their “love of flowers, and glory in creating honey,” as Virgil put it, is the foundation for the hive’s prosperity: although individual bees have short lives, “the species remains immortal, and the fortune of the hive/ is good for many years, and grandfathers’ grandfathers are counted.” In *Henry V*, the war-mongering Canterbury articulates the political lessons
that bees embody. They are defined by their “Obedience” as “Creatures that by a rule in nature teach/ The act of order to a peopled kingdom.”

In anthropomorphizing bees as magistrates, merchants, masons, soldiers, citizens, and porters, Canterbury describes a hierarchical order that descends from a supposedly male monarch to “the lazy yawning drone” (I.ii.203). “Order,” writes Allen, “consists precisely of functional differentiation” determined in relation to the all-important task of the hive: to produce and store sufficient food for the winter (88). Later in the seventeenth century, the Cambridge Neoplatonist Henry More singles out bees (along with elephants) to further his argument that there is “no Evil but Good in the Animal Life” because each species exhibits in its nature the wisdom of a Divine creator: peacocks exhibit a love of praise, storks natural affection for their offspring, and domesticated dogs a principle of altruism. The “Political order and government in the Commonwealth of Bees,” More continues,

is not only noted by great naturalists . . . but vulgarly known to every Countryman that has Hives in his garden; where he may observe, how some one Bee by his humming, as by the sound of a Trumpet, awakes the rest to their work; how fitly the whole Company distribute the several tasks of Mellification amongst themselves; how severe punishers they are of Drones, ejecting them out of their Hives; how loyal they are to their King or Captain, moving as he moves, and sustaining him with their own bodies when he is weary with flying.

For More, like Shakespeare, the “Commonwealth of Bees” depends on both the “loyalty” of worker bees to their “King or Captain,” but also on the shared project of “Mellification,” or producing the honey that sustains the colony. Bees are a model of social order and government, then, precisely because they are highly efficient hoarders, mobilizing to sustain a polity defined in terms of the production, storage, and defense of a vulnerable food supply. As Virgil puts it, “They alone . . . in summer, remembering the winter to come, / Undergo labour, storing their gains for all.” For More and his contemporaries, humans can learn from bees, these masters of corporeal imagination and foresight, that cooperative food production and storage are the primary means of self- and species-preservation.

Crusoë’s commitment to the Georgic tradition is embodied in his admiring and lengthy description of the colony’s architecture, which resembles a human apiary: catching sight of the Englishmen’s houses, he remarks “at
a Distance,” it looked “as if they liv’d all like Bees in a Hive.”59 The form of the colonists’ housing mirrors its primary function—to protect and preserve their fragile food stores. The Indians made both the houses and fences, “radingling or working” the dried plants “up like Basket-work all the way round, which was a very extraordinary Piece of Ingenuity” (73). The “Basket-work” of native materials underscores the bee-like self-sufficiency of these enclosures, and while the human apiary “look’d very odd,” Crusoe remarks, the basket-work houses constituted “an exceeding good Fence, as well against Heat, as against all Sorts of Vermine” (73). Together the houses demonstrate that the colonists have escaped their former statuses as vermin, predators, or scavengers and have transitioned, collectively, into a working polis, a human instantiation of More’s “Commonwealth of Bees.”

Similarly, the house inhabited by Will Atkins—who, we are told, has become “a very industrious necessary and sober fellow” (73)—stands as the architectural apotheosis of the agro-colonial ideal. Defoe provides far more detail about this “Great Bee Hive” than does about the cave-like habitation in which he dwelled for over twenty years:

[The house] was 120 Paces round in the out-side, as I measur’d by my Steps; the Walls were as close work’d as a Basket in Pannels, or Squares of 32 in Number, and very strong, standing about seven Foot high; in the middle was another, not above 22 Paces round, but built stronger, being Eight-square in its Form, and in the eight Corners stood eight very strong Posts, round the top of which he laid strong Pieces pinnd together with wooden Pins, from which he rais’d a Piramid for the Roof of eight Rafters, very handsome I assure you, and join’d together very well, tho’ he had no Nails, and only a few Iron Spikes. . . . after he had pitch’d the Roof of his inner-most Tent, he work’d it up between the Rafters with Basket-work, so firm, and thatch’d that over again so ingeniously with Rice-Straw, and over that a large Leaf of a Tree, which cover’d the Top, that his house was as dry as if it had been til’d or slated. Indeed he own’d that the Savages made the Basket-work for him.

The outer Circuit was cover’d, as a Lean too, all round this inner Appartment, and long Rafters lay from the two and thirty Angles to the top Posts of the inner House, being about 20 Foot Distant, so that there was Space like a Walk within the outer Wicker-Wall, and without the inner, near 20 Foot wide.

The inner Place he partition’d off with the same Wicker-work, but
much fairer, and divided it into six Appartments, so that he had six
Rooms on a Floor; and out of every one of these there was a Door, first
into the Entry or Coming into the Main-tent, and another Door into
the Space or Walk that was round it; so that Walk was also divided into
six equal Parts, which serv’d not only for Retreat, but to store up any
Necessaries which the Family had Occasion for. These six Spaces not
taking up the whole Circumference, what other Appartments the outer
Circle had, were thus order’d: As soon as you were in at the Door of the
outer Circle, you had a short Passage straight before you to the Door of
the inner House, but on either Side was a wicker Partition, and a Door
in it, by which you went, first, into a large Room or Store-house, 20 Foot
wide, and about 30 Foot long, and thro’ that into another not quite so
long; so that in the outer Circle was ten handsome Rooms, six of which
were only to be come at thro’ the Apartments of the inner Tent, and
serv’d as Closets or retiring Rooms to the respective Chambers of the
inner Circle, and four large Warehouses or Barns, or what you please to
call them, which went in thro’ one another, two on either Hand of the
Passage, that led thro’ the outer Door to the inner Tent.

Such a piece of Basket-Work, I believe, was never seen in the World,
nor a House or Tent, so neatly contriv’d, much less, so built. In this great
Beehive liv’d the three Families. (73–75)

Although a beehive is composed of a series of regular hexagons and Will
Atkins’ house is an octagon subdivided into large and small apartments,
both structures adhere to a strict geometric architecture. Hives protect bees
and their food supplies from heat and moisture, while channeling movement
into and from the hive and the outside world. In his account of the beehive
later in the eighteenth century, Oliver Goldsmith anthropomorphizes apid
architecture and the putative architects: “These lodgings have spaces, like
streets, between them, large enough to give the bees a free passage in and
out; and yet narrow enough to preserve the necessary heat. The mouth of
every cell is defended by a border, which makes the door a little less than the
inside of the cell, which serves to strengthen the whole.” Images such as
this one naturalize an extended analogy between the biopolitics of bees and
humans. The multifunctional and hyperefficient internal structure of the
hive becomes a kind of disciplinary mechanism: according to Goldsmith, the
“cells serve for different purposes: for laying up their young; for their wax,
which in winter becomes a part of their food; and for their honey, which
makes their principal subsistence” (71). With its living quarters, storerooms, antechambers, and passageways, Atkins “Great Beehive” exhibits a similar kind of multifaceted order that, in its efficient procurement and storing of provisions, embodies and reinscribes the principles of an ordered state.61

The precondition of the apid state is hunger: its solution, industry; its outcome, morality. In his commentary on Aesop’s Fables, John Trusler claims “the hive is a significant emblem of industry, it being the store-house, where the bees lay up their provision for the winter.” Trusler then turns “industry,” intensive labor, into a kind of trans-species ideal. “Industry,” he continues, “is the straight line to retirement, for the diligent man maketh rich.”62 In The Grumbling Hive, Mandeville’s argument about industry is more complex, but he begins by describing it as a response to “Hunger”: “a dreadful Plague no doubt / Yet who digests or thrives without?” In his poem, “Insects” who “lived like Men” demonstrate how private vices lead to public good. Although Mandeville’s poem is sometimes read satirically, within the context of early modern bestiaries, any comparison between men and bees signaled an attempt to define humans and their political relations in ways outside of, or tangential to, a Hobbesian zoography, dominated by predators and prey. If, the logic goes, all animals are driven by hunger and compete with each for food, and if hot-blooded animals (like dogs, wolves, and humans) are especially destructive in this regard, humans might do well to take a lesson from bees who, in their ability to convert natural resources, nonviolently, into food that sustains rather than destroys the hive, are not so much anti-vermin as non-vermin. By virtue of functional differentiation as workers, drones, and queens directed towards the shared goal of thoughtful provision, bees demonstrate how to arrive at communal plenty: through excess of industry, bees arrive at moderation.

Atkins’s beehive house, then, is proof, presumably, of progress, of how far the colonists have come since Crusoe’s first efforts, decades earlier, to lay up a store of raisins to “furnish” himself “for the wet Season” (131), only to find that they they had either rotted (“spoil’d”) or had otherwise been made inedible by “wild Creatures thereabouts” (131). The colonists’ mimicry of bees demonstrates their (admittedly shaky) claim to having escaped the less-desirable society of parasites and predators described in cringeworthy detail by Jonson, Rochester, and Shadwell. The plantation’s “Barns” and “Warehouses” are offered as a sign that the Europeans’ efforts are directed by a God who, from the beginning, has guided Crusoe into exhibiting his divine reason (125). As I have suggested, however, the materials and workmanship
of Atkins’s “Great Hive” are not really—or not solely—artifacts of European techno-superiority. Instead, the Europeans constructed their colony by appropriating the labor of men formerly described as “a hundred Wolves upon the Island.” The “Great Hive,” in other words, is built on a great violence. Mandeville defines “society” as “a Body Politick, in which Man either subdued by Superior Force or by Persuasion drawn from his Savage State is become a Disciplin’d Creature, that can find his own Ends in Labouring for others, and where under one Head or other Form of Government each Member is render’d Subservient to the Whole and all of them by cunning Management are made to Act as one” (ccxiv). From this perspective, Crusoe’s multicultural island exhibits a kind of Mandevillian logic: both the Indians and the formerly “wild” colonists, like Will Atkins, have been “Disciplin’d” through a “Superior Force” or “Persuasion”—including near-starvation—to work together with supposedly hive-like efficiency. Solutions to the characteristic problems that confronted island colonies—deforestation, soil exhaustion, disease, dependency on foreign goods and supplies—can be managed, Defoe suggests, only through moral reformation and the careful appropriation of indigenous materials, know-how, and technologies. It appears from his works that some may be starved to procure food for the many, and that food security constitutes one of the most important goals of the modern state.

COLONY COLLAPSE AND THE DEATH OF DRONES

Midway through Farther Adventures, Crusoe decides to leave the island for good and, now in his sixties, embark on a career as a merchant in Asia. Robert Markley calls attention to the vehemence of Crusoe’s language in abandoning the colony: “I have now done with my Island, and all Manner of Discourse about it; and whoever reads the rest of my Memorandum’s would do well to turn his Thoughts entirely from it” (125). In Crusoe’s absence, the beehive settlement seems to undergo a kind of colony collapse that is only partially explained in the novel. “The last Letters I had from any of [the colonists],” Crusoe writes, “was by my Partners means; who afterwards sent another Sloop to the Place, and who sent me Word, tho’ I had not the Letter till five Years after it was written; that they went on but poorly, were Male-content with their long Stay there: that Will. Atkins was dead; that five of the Spaniards were come away, and that tho’ they had not been much
molested by the Savages, yet they had had some Skirmishes with them; and that they begg'd of him to write to me, to think of the Promise I had made to fetch them away, that they might see their own Country again before they dy'd” (126). Without its “Patron” the leaderless colony, especially after Atkins's death, reverts to entropic disorder. The “People under no Discipline or Government but my own” (126), posits Crusoe, might have “done well enough,” but without his “cunning Management,” as Mandeville calls it, the colony becomes a failing backwater. Because it operated as a fantasy of collective zoopolitical structure rather than as a colony per se, Crusoe’s island had never been attached to a state. Crusoe admits that he “never so much as pretended to plant in the Name of any Government or Nation, or to acknowledge any Prince, or to call [his] People Subjects to any one Nation more than another; nay, [he] never so much as gave the Place a Name” (125). Now, as the nameless colony collapses, the beehive metaphor crumples, too, reappearing in the context of stasis and idleness. “The whole World is in Motion,” says an English merchant who persuades Crusoe to outfit a trading expedition to China, “rouling round and round; all the Creatures of God, heavenly Bodies and earthly are busy and diligent, Why should we be idle? There are no Drones in the World but Men, Why should we be of that Number?” (144).

For the merchant, drones are associated with a sedentary, land-based existence, the kind of life Crusoe compulsively seeks to escape in order to return to the sea. This analogy is worth exploring in more detail. At least since Virgil, as Allen argues, “the laboring bee is the picture of perfection, superior to the imperfect and lazy drone” (94). Imagined as females until the late 16th century—until the “king” bee was recognized as a queen—the “stay-at-home drones,” neither gathering nectar nor building hives, were perceived as emblems of waste and luxury, as drains on the hive’s food supplies. The discovery that drones were male “came with a flood of anxieties,” Allen continues, “about the relative value of male and female work” (96) along with, I would add, more animated discussion about the well-known phenomenon of drone sacrifice. Writing in 1637, Richard Remnant explains in Discourse or Histories of Bees how female bees kill the drones “for necessity”: “for the males are exceedingly great eaters and wasters of the winter provision, therefore the females kill them, and had rather be without their sweet companie, than starve in their winter.” More than 100 years after Remnant, in The Deserted Village, Goldsmith describes this selective extermination as a “cruel policy,” but one that attests to Nature’s refusal of luxury: “The drone bees . . .
are marked for slaughter. These, which had hitherto led a life of indolence and pleasure, whose only employment was in impregnating the queen, and rioting upon the labours of the hive, without aiding in the general toil, now share the fate of most voluptuaries, and fall a sacrifice to the general resentment of society.” When Crusoe’s merchant exhorts him to leave the hive—there are no “Drones in the World but Men”—he appeals to a similar moral and economic logic: as a male, he can either stay at home, like the drone, and be idle, or can join the ranks of the worker bee, “rouling round and round,” “busy and diligent.”

While Crusoe’s “Great Hive” houses no drones—indeed, no queen, and very few females—the analogy nevertheless strikes me as being ontologically constitutive. If the Enlightenment state is built on the beehive, that state, like the beehive, contains within it and promotes a sacrificial economy. The famed efficiency of the hive, its legendary industry, depends (according to seventeenth- and eighteenth-century naturalists) on the systematic extermination of hungry members whose use-value has been expended. In this sense, the industrious beehive generates its own vermin, those who provoke “resentment” for their “rioting” on food for which they have not worked. Regarded as part of a sacrificial economy, then, the powerful bee analogy continues the impulse to extermination that we have seen in previous chapters populated by fleas, witches, rats, Jews, dogs, and other “imperfect creatures.” Such “imperfection” may be variously associated, as we have seen, with a perceived lack of sexual development, with sexual or gender ambiguity, with simple because cold-blooded neuroanatomy, with rapid reproduction, and with an excess of appetite. Hungry, horny, effeminate, and luxurious drones fulfill several of these criteria. The important point is that drones, like these other vermin, are necessary to the “well-ordered” human hive, threatening but decidedly constitutive agents within its religious, sexual, medical, economic, and moral systems.

What Defoe’s rats, wolves, cannibals, and drones make explicit—and what Imperfect Creatures has, I hope, conveyed—is how much those second-order systems depend on something many Anglo-European scholars take for granted: food. Mosca’s observation on a corrupt Venice in Ben Jonson’s Volpone holds true, it turns out, not only for Rochester’s London but for Crusoe’s island: “All the world is little else, in nature, / But Parasites, or Sub-parasites.” Crusoe, often taken as an embodiment of modern economic values, appears iconically in the eighteenth century in illustrations that show him, as Richard Nash puts it, “swallowed up in his goatskins.” These skins
derive from the same goats that serve as his food, clothing, and, if Alexander Selkirk is any indication, perhaps his sometimes consorts. (Selkirk may have “cherished” his cats to ward off rats, but he had sex with the island’s female goats, notching their ears as a sign that they had been “had.”) In some sense, Crusoe’s parasitic relationship to Nature mirrors our own. We too live “in the animal we eat,” or, as Serres puts it, “We live within tents of skin like the gods within their tabernacles.” Defoe’s hero struggles mightily to avoid descending to the level of scavenging or ravenous beasts, but his adventures are haunted by the half-realized knowledge that the lines between species, like those between “perfect” and “imperfect” creatures, are porous, and easily exposed. That rats, the primary material threat to his food supply, were banished in advance demonstrates the extent to which Defoe’s metaphysical guarantees of species identity and providential fortune are themselves, as Serres suggests, always idealizations, ones that deny the force and historicity of nature. Complex ecologies function in and through the very parasites that an edenic nature must ignore. As English literature’s most famous “verminous son of God,” Robinson Crusoe signifies both the struggle and the failure to escape the entangled feeding practices of the more-than-human world.