The Animal in Ottoman Egypt

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PART TWO

BARK AND BITE
In-Between

In the lands of the infidel Franks, the so-called Europeans, every dog has an owner. Three poor animals are paraded on the streets with chains around their necks, they’re festered like the most miserable of slaves and dragged around in isolation. These Franks force the poor beasts into their homes and even into their beds. Dogs aren’t permitted to walk with one another, let alone sniff and frolic together. In that despicable state, in chains, they can do nothing but gaze foetidly at each other from a distance when they pass on the street. Dogs who roam the streets of Istanbul freely in packs and communities, the way we do, dogs who threaten people if necessary, who can curl up in a warm corner or stretch out in the shade and sleep peacefully, and who can shit wherever they want and bite whomever they want, such dogs are beyond the infidels’ conception.

—Orhan Pamuk

When humans have written about other animals, they have more often than not written about dogs. Dog domestication and human history have indeed marched in lockstep, fusing together the fates of both species. Biologists, historians, anthropologists, ethologists, and others have long argued about whether humans made dogs or dogs made humans. Yes, we domesticated them for hunting, protection, and companionship, but they have also clearly managed to control us to their benefit by making us feed, support, and provide for them. “So who then,” as Michael Pollan has usefully asked with regard to certain plants, “is really domesticating whom?” Humans can survive without dogs, but domesticated dogs cannot survive without humans. As the history of bulldog breeding shows, many domesticated dogs breed for characteristics such as loyalty, cuteness, pedigree, size, coat color, and playfulness literally cannot be brought into this world without humans (cesarean rates for bulldogs are over 90 percent). Given this imbalance, it is clear that dogs have succeeded in forcing us to keep them around. Rousseau had a dog named (interestingly enough for us) Sultan. In his last days, Hitler purportedly only trusted his dog Blondie, who—along with Eva Braun—was killed at the Führer’s side as the Russians entered Berlin.
Against the classical literature about dogs, the actual historical record of the animal in Ottoman Egypt brings to life an even more positive sketch of the human-dog relationship. Like livestock, dogs were everywhere in Ottoman Egypt and ultimately had to be dealt with in culturally, economically, politically, and socially serious and productive ways. For the first few centuries of Ottoman rule in Egypt, human-dog interactions were mutually constructive. Dogs protected, provided companionship, participated in military campaigns, ate trash, and helped in the hunt. In return, humans provided food and water for them, prohibited killing them, and wrote a great deal about them.

At the turn of the nineteenth century, this relationship—like so much else in Ottoman Egypt—drastically changed. Dogs in the early nineteenth century were no longer considered productive and constructive members of society. They came to be seen primarily as those polluters, competitors for urban space, potential disease vectors, and useless sources of filth. They were therefore deemed economically negligible and ultimately culturally ignorable. For these and other economic, demographic, and epidemiological reasons, dogs became increasingly expendable in the early nineteenth century and eventually became targets of eradication campaigns. Their stories reveal how human relationships with canines changed more over the fifty years between 1780 and 1830 than they had for millennia before that. Their stories also help to explain changing notions of disease and health at the turn of the nineteenth century, reforms in urban sanitation and politics, and the growing power of the Ottoman-Egyptian state to exact interspecies violence. The history of changes in human-dog relations in Ottoman Egypt is thus part and parcel of the history of the enormous transformations that forged Egypt at the turn of the nineteenth century.

The Prophet’s Puppies

The constructive relationship of mutual reliance and productivity between dogs and humans in the early modern period was the product of centuries of ideas about dogs in Muslim societies. Much of the classical Islamic religious and legal literature about dogs turns on the question of the animal’s saliva. The origins of this debate can be traced to a Prophetic report (hadith) citing the need to wash a container several times—even cleaning it with a shower of dust, according to one variant of this report—after a dog’s licking of the vessel. The various versions of this hadith instruct that the container be washed different numbers of times (one, three, five, or seven); sometimes the directive to use dust is included and sometimes it is not. Another report states that if a dog touches one’s garment, the garment is to be rubbed forcefully if dry and washed with clean water if the dog left it moist. Other hadith claim that the Prophet instructed that any
place where a dog had lain down was to be washed for fear that some of his saliva had dripped on the ground. In short, it was thought that a dog’s saliva was impure and could void a Muslim’s ritual purity. The fixation in the Prophetic tradition on canine saliva has precedents in the Quran itself: “So his [the unbeliever’s] likeness is as the likeness of a dog. If you attack it, it lolls its tongue out; if you leave it, it lolls its tongue out.”

Many commentaries written about dog saliva cite deference to the authoritative hadith insisting on the washing of a vessel touched by a dog as the primary justification for the judgment that the animal and its saliva were impure. Thus dogs, like pigs, were to be taken as impure, despite any evidence to the contrary. Many jurists, however, took issue with this opinion. A number of Māliki legal scholars began from the premise that everything in nature must be considered pure, unless proven otherwise through lived experience or by the authority of a textual tradition. To argue against the stated position that dogs were impure, these scholars therefore attacked the reliability and authenticity of many of the texts about dogs. Other writers took a different tack and posited that edicts to wash a vessel licked by a dog were aimed at preventing the spread of disease among the community of believers. They argued that a container only had to be cleaned if it could be firmly established that the dog that licked it was known to be infected with a disease. If there was no proof of infection, then the dog’s purity had to be assumed and accepted. A different set of jurists made a distinction between rural and urban dogs. They claimed that only the latter were impure because they consumed human and other garbage. Using a similar logic, others argued that domestic dogs were pure—thanks to their human masters who fed, housed, cleaned, and cared for them—while wild or feral canines or street dogs were impure. These arguments for and against the notion of the impurity of dogs, and particularly of their saliva, not only reflect the depth and complexity of religious, legal, and cultural thinking on the subject but also show that dogs were constant members of human society demanding engagement and cultural understanding.

A similar but less-discussed issue related to dogs and ritual purity was whether or not the mere sight of the animal during prayer would nullify that prayer. This idea was part of a larger tradition claiming that donkeys, pigs, and other animals—as well as women and sometimes non-Muslims—would all void the prayer of a pure (male) Muslim if they passed in front of him as he prayed. As with the issue of canine saliva, this idea also had its skeptics. Some hadith unequivocally claimed that the Prophet himself prayed while dogs played near him. In general, it seems that the Prophet and his companions had a fairly positive view of dogs. Indeed, no less an authority than the Prophet’s wife Aisha threw the notion that canines and women were nullifiers of prayer into doubt when she argued that the association of dogs with women was demeaning to the latter and had no basis in the teachings and actions of the Prophet. Given that this necessary constitutive condition of the hadith (the connection between animals and women) was in question, jurists ruled that the entire report was inauthentic, thus invalidating the idea that the sight of women or of dogs, pigs, and other animals voided prayer. The equivalence drawn between these various “problematic” classes of creation constitutes what the modern legal scholar Khaled Abou El Fadl calls “a symbolic nexus between marginalized elements of society.” He explains that the ambivalence of early Islamic legal scholars on the question of dogs was a product of the fact that “discourses on dogs played a symbolic role in the attempts of pre-modern societies to explore the boundaries that differentiated human beings from animals. In that sense, the debates about dogs acted as a forum for negotiating not just the nature of dogs but also the nature of human beings.” Seen through this wider lens, both the regularity and wide divergence of opinions about dogs stand as elements in a long debate within and without Islamic thought over the nature of humanity and God’s creation. For these Muslim writers, dogs were a vehicle for part of this argumentation, rather than a specific end in and of themselves.

Thus, very little in the authoritative classical literature of Islam suggests that dogs were explicitly impure, unwanted, or dangerous. To the contrary, there is quite a bit of evidence advocating a much more open relationship with the animal. In addition to hadith about the Prophet himself praying in the presence of dogs, other reports relate that the Prophet’s younger cousin and some of his companions owned and raised puppies. Dogs were known to roam freely
around Medina, and some were even reported inside the Prophet's mosque. A prostitute—in some versions of the story it is an elderly woman or a sinning man—secured her place in heaven by giving water to a dog dying of thirst in the desert. The protective dog of the Man of the Cave that "stretches out its paws on the threshold" of their abode was likewise assured a place in paradise. Only the Quranic (not the Christian) version of this story includes a dog. There is even some debate in Islamic scholarship as to the dog's name, a clear indication of its importance. Whatever his name, he had the ability to speak and was purported by some to be the spiritual leader of the Man of the Cave and by others to be the reincarnation of a human. Another long tradition in Islamic scholarship identifies the canine endurance of wounds as a desirable attribute which military and political leaders should seek to emulate.

That hadith and other texts in the Islamic legal and religious corpus mention dogs is not at all surprising. The animal was everywhere in the world in which these thinkers were writing. Perhaps what is surprising to some is that there is no definitive answer to the question of the purity or impurity of dogs and, moreover, that there are indeed many statements expressing explicit support for the animal by and for Muslims.

**Toward a Dogma**

These early Prophetic reports and other religious texts suggesting a mixed view of dogs in Islamic society were superseded by the writings of the famous ninth-century theologian and scholar al-Jahiz. Along with several later writers, al-Jahiz in many ways settled the debate over whether dogs should be identified with their meritorious or malignant qualities. Dogs were useful and important. Although a great many of al-Jahiz's works describe the characteristics of different animals, address numerous aspects of animal life, and sketch various facets of the human-animal relationship, his most sustained study of these topics is the aptly titled *The Book of Animals* (Kitāb al-Ḥayawān). This mid-ninth-century book includes a massive compendium of Quranic references, hadith, and other religious writings about animals; citations to Greek scientific texts, especially the works of Aristotle and Galen; observations of Bedouin tribes near al-Jahiz's homes in Basra and Baghdad; discussions of relevant classical Arabic prose and verse; and engagement with other literary, scientific, religious, and cultural sources. Both its form and content make it an important precursor to similar later texts by the likes of Qazvini and al-Damiri. Al-Jahiz's book is best conceived of as both a work of Aristotelian zoology in which he is chiefly concerned with the physical forms, behavioral characteristics, and personalities of animals, and as a theological treatise striving to evidence the perfection of God's creation.

![Figure 3.2 Dog from the Ottoman Translation of Qazvini's Akia in the Museum, Walters Art Museum, Ms. W.659, 113b. Used by permission of Images for Academic Publishing.](image)

Among walking animals—al-Jahiz divides creatures into four classes, those who walk, fly, swim, and crawl—dogs figure quite prominently.

In a fictitious debate in *The Book of Animals* between a supporter of the dog and a supporter of the cock, al-Jahiz makes a strong case for why dogs were especially praiseworthy and superior to other animals. For al-Jahiz, the great intelligence, compassion, and skill dogs possessed proved the wisdom and design of God's creation. As animals that shared much of the inner nature of humans, dogs held particular significance for understanding the natural world and humans' roles within it. In addition to their proximity to man in temperament and their abilities to reason and feel, dogs also served society as guardians of flocks, companions for the lonely, and aids in hunting. Because of its detailed accounting of various aspects of dogs, al-Jahiz's work is also significant as one of the earliest texts to give a sense of the different dog varieties that lived in his part of the Middle East (primarily Iraq, Greater Syria, and the northern Arabian Peninsula). Among the most common dogs of his day were the greyhound (al-salāq), Kurdish sheepdog (al-kūrdi), Pekinese (al-zīn), and hasset sheepdog (al-zīn).

One particularly instructive anecdote from al-Jahiz's work about both the closeness of dog and human and God's divine order was that of a dog that suckled a human infant. Plague had ravaged a certain household, killing all of its members and leaving their home empty. A few months passed and one of the family's heirs went to retrieve something from the house. When he entered the home's courtyard he was startled to find an infant child playing with some young puppies. Surprised, afraid, and intrigued, the man continued watching the human child until the mother of the puppies appeared. The human baby then went over to the bitch and started suckling her dogs, which she freely gave
to him.\(^\text{12}\) al-Jāḥiṣ relates this story to make several points.\(^\text{13}\) The first is a lesson about humanity’s ineptitude and cruelty. How could this house have been boarded up and abandoned with a human child left inside? Are humans that cruel, careless, and unaware? The more important point for al-Jāḥiṣ is about the divine order scripted by God for his earthly creation. God endowed the bitch with the natural ability to feed the child and the child with the instinct to feed from the canine mother. He also ordained that this particular dog would be in the house to allow the child to survive with no other humans around him. “Divine direction,” al-Jāḥiṣ remarks, is “everywhere in nature.”\(^\text{14}\) Finally, this story is a very clear example of the intimate, innate, imperative, instinctual, and in-between shared natures of humans and dogs.\(^\text{15}\) Domestic dogs need humans for food, shelter, and some amount of protection, and humans—as this story clearly illustrates—in turn need dogs.

Written in the century following al-Jāḥiṣ’s death, a text known as *The Superiority of Dogs over Many of Those who Wear Clothes* by the Iraqi writer Ibn al-Marzuqān is the longest Arabic treatise devoted entirely to dogs and their virtues for human societies.\(^\text{16}\) Ibn al-Marzuqān’s text, like al-Jāḥiṣ’s, represents a sort of compendium of stories and verse about dogs from various cultural traditions—Persian, Indian, Greek, Arab—and therefore serves as a snapshot of the thinking about dogs in the tenth-century Muslim world. The dog and the human exist in this text as just two parts of a much larger spectrum of living things. Like all other creatures, both think, feel, act, and choose. This text’s fluid interspeciesity and seamless slippage between the human and the animal comes through in Ibn al-Marzuqān’s identification of two categories of dog—“the dog of humans (kahl al-nās)” and “the dog of dogs (kahl al-kilāb),” the former being much more dangerous than the latter.\(^\text{17}\) With this formulation, Ibn al-Marzuqān means to say that both dogs and humans could domesticate and hence be masters of dogs. The human-possessed creatures, no doubt because of their interactions with people, were much more vile, violent, and aggressive than those dogs who remained exclusively among their canine kin. In Ibn al-Marzuqān’s words, “A dog of dogs does no harm to those around him; but you are constantly tortured by a dog of humans.”\(^\text{18}\) This and Ibn al-Marzuqān’s many other vignettes about the human-dog relationship are a clear statement that he considered dogs more trustworthy, useful, loyal, and loving than humans or any other sentient being.

As an illustration of canine superiority, consider the story related by Ibn al-Marzuqān of a certain unnamed king who enjoyed hunting and traveling with a dog he himself had reared.\(^\text{19}\) The dog never left his king’s side, and the king always shared his lunch and dinner with the animal. This dog even had a name, something of a rarity in the human-dog relationship as it appears in the Islamic literature of this period.\(^\text{20}\) During a particular hunting trip, the king ordered his cook to make a milky rice pudding (ṣarālīd) for the evening meal at the end of a day’s hunt. The cook prepared the pudding and then left it uncovered as he began to make something else. Unbeknownst to the chef, a viper entered the cooking area through a crack in the wall, ate a small portion of the pudding, and spat poison into the dish. Two living beings saw what the snake had done to the pudding: the king’s trusted dog and a mute elderly servant woman also in the king’s company.\(^\text{21}\) Upon his return from the hunt, the hungry king promptly asked for his pudding. As he sat down to the table, the old woman made a gesture to warn the king about the poison in his meal.\(^\text{22}\) She was ignored. The king then grabbed his spoon and his dog began to bark. Assuming that his faithful companion was hungry as well, the king threw some of his dinner to the animal, but the dog avoided it entirely and continued to howl. Thinking that something more serious was wrong with his dog, the king ordered his men to take the animal away so he could finish his dinner in peace. The king then dipped his spoon into the pudding. Seeing that his master was about to consume the poisoned pudding, the dog wiggled free from the guards, leapt onto the table, overturned the king’s dish, and—in a sacrificial show of loyalty—lapped up the spiked pudding. Initially enraged by what his dog had done, the king soon noticed the animal becoming weak. In a matter of moments, the dog fell dead with his skin peeling away and his flesh disintegrating. Realizing what had just happened, the king thanked his best friend, praised the animal’s loyalty and sacrifice, buried the dog between his own father and mother, and built an ornate mausoleum over the animal’s grave.

In juxtaposing the mute old woman with the loyal dog, this story creates a kind of hierarchy of being. The only two creatures who see the viper poison the pudding and who are therefore responsible for saving the king’s life are the dog and the physically impaired elderly woman. Despite both creatures being unable to speak—a human subaltern who literally cannot speak and a canine that can only bark—the story makes clear that the dog was obviously a much more constructive member of this community than the woman, a human endowed with social weakness by both her sex and physical compromise.\(^\text{23}\) Ibn al-Marzuqān’s message is clear: the human is weak and incapable of saving the king; the dog is strong and not only able but also willing to sacrifice his own life to save the king’s.

Of course, the woman is not the only inadequate human in this story. The foolish cook who forgot to cover the pudding, the careless architect or groundskeeper who allowed for a crack to develop in the kitchen wall, and the king’s many other servants all fail to save the life of their sovereign. Of all the beings in this story—human, canine, and viper—it is thus the dog that emerges as the most heroic of God’s creatures, his sacrifice securing for him a place between the king’s parents and, implicitly, in heaven for all eternity.\(^\text{24}\) Unlike earlier accounts from the Prophetic tradition that questioned whether or not dogs prevented humans from fulfilling certain religious or social obligations, this story clearly
Here again the dog appears as martyr. Wrongfully accused and killed, the dog is vindicated only in death and recognized as a hero with an honorable burial. Unlike the tale of the king and the poisoned pudding, underlying this story of dog and viper is a lingering anxiety about the wild nature inherent in the animal. Although the dog was presumably domesticated, the assumption is that the animal—when left to its own devices—will succumb to its wild instincts and kill the defenseless child. It is precisely the perceived wild nature of the dog-turned-beast—the story is purposefully explicit about the fact that blood dripped from his muzzle—that necessitates that the creature be killed to protect human society. The line between the wild and the civilized, between wolf and trusted domesticated dog is all too thin. That the dog is not wild is, of course, the eventual irony and cruel moral lesson of the story. In the end, the dog is found to be the protector of the domestic human space from the wild savagery embodied by the viper. The multiple dualities imbedded in the now-dead body of the dog—wild and domestic, animal and human, ferocious and protective, worldly and divine—immediately flip as the man enters his home to discover the mistake and truth of his actions. Ultimately, the dog is vindicated as an integral member of human society, in both life and death.

Here Boy

From the time of the Prophet until the tenth century, writings about dogs in the Muslim world moved from a focus on debates over the impurity and character of the dog toward a more confident stance about the animal as a constructive, productive, and integral component of human society that fulfilled necessary social, familial, and political roles. This earlier tradition was crucial in informing engagements between humans and dogs in early modern Ottoman Egypt. Two different source bases bring to life the significance of dogs as important members of Egyptian society until the end of the eighteenth century: religious, allegorical, and legal treatments of dogs, and the social historical record of humans' interactions with canines.

One of the most sustained defenses of dogs in Ottoman Egypt was penned by a religious scholar writing in Cairo between the middle of the sixteenth and the middle of the seventeenth century. Kür al-Din Abū 'l-Ishād 'Alī ibn Muhammad Zayn al-Abīdīn ibn 'Abd al-Raḥmān al-Aḫūrī was born in the village of al-Aḫūrī in the subprovince of al-Qādyābīyā in 1560. He was a Māliki jurist (fuqahā) who spent most of his intellectual career at al-Azhar in Cairo writing on various legal topics, including the permissibility of coffee-drinking and smoking. He was blinded very late in life by an angry student who hit him over the head with an extremely heavy book. He died in
1656. His opinions and writings on the general acceptability and ritual cleanliness of the dog (tahārāt al-kalb) survive in a text composed as a hypothetical debate between different schools of religious law.66 al-Ajhūrī represented his own Mālikī tradition against the positions of an unnamed, and possibly imaginary, Shāfi‘ī scholar. The debate consisted of eight points of contention. In each of these eight sections, al-Ajhūrī first presented a reason why dogs were clean and productive beings in society; his opinion was then countered by the Shāfi‘ī scholar defending the position of the ritual impurity (najāṣa) of dogs; and al-Ajhūrī then responded to these criticisms.67 Portions of the debate revisit some of the classical disputes over the cleanliness of the dog—the issue of saliva being the most central. In stark contrast to earlier debates, however, the position advocating the impurity of dogs was no longer tenable. Thus by the seventeenth century, as al-Ajhūrī demonstrates, an evolution had occurred in the thinking about human-dog relations in Egypt, making the impurity of the animal a moot point.

For example, al-Ajhūrī writes that dogs entered the mosque of the Prophet in Medina and were cared for by those in attendance.68 Even though the animals rested their muzzles on the carpeted floor of the mosque, leaving some saliva on the sacred ground, they were not banished from the hallowed space, and there was no indication that these areas had to be washed or cleaned in any special way. Indeed, the Prophet himself, al-Ajhūrī writes, allowed dogs to remain in the mosque and was seemingly not bothered by their presence or saliva.69 al-Ajhūrī’s interlocutor offers up the rather weak retort that perhaps the dogs in question had dry mouths and therefore left no moisture on the mosque floor.66 al-Ajhūrī is quick to respond that this is highly unlikely given the propensity of dogs to pant and slobber.70 More importantly, al-Ajhūrī adds, because there is no specific mention of the dogs’ wet mouths, it must be assumed that their saliva was accepted as an unproblematic part of their recognized nature and was hence not considered impure.71 The feeble critique offered up by al-Ajhūrī’s Shāfi‘ī debater and the Mālikī’s strong response suggest both the tiredness of these arguments against the dog by the early modern period and the ascendancy of the position supporting the purity of the animal and its saliva.

Putting to rest any lingering doubts on the subject, al-Ajhūrī writes that there is no danger of impurity in the human consumption of animals collected in the mouths of dogs during a hunt, given “the ritual cleanliness of the dog’s saliva (tahārat rikhī).”72 This idea traps into an older one that even some Shāfi‘ī scholars accepted, namely that even if dogs are ritually impure, God made their saliva clean as a special dispensation (rukhā) to human hunters who needed dogs for their own sustenance.73 In a final example of the purity of the dog, al-Ajhūrī cites a hadith about a man who one day came upon a desperately parched canine eating moist earth in an attempt to squeeze some water from the dirt.74 Taking pity

on the animal, the man took off his shoe and used it to ladle water from a nearby well into the dog’s mouth until he was no longer thirsty. In return for this good deed, God is said to have granted this man entrance into paradise. The Shāfi‘ī responded to this hadith by claiming that the man likely first poured water from his shoe into a vessel and only then gave the water to the dog from the vessel, thereby protecting and preserving the purity of his shoe from the dog’s saliva.75 al-Ajhūrī responds to this challenge by making the very simple point that if such a vessel had been available, the man would surely have filled it with water from the well and given it directly to the dog rather than use his shoe as an intermediary container.76 It had to be assumed, in other words, first that the man’s shoe was the only remotely suitable container available, and second—and most significantly—that there was no legal objection to the dog’s saliva touching the man’s shoe and presumably then his foot.

During his youth in the countryside and later as an adult in Cairo, al-Ajhūrī was likely quite accustomed to seeing dogs all around him. Although he approached his writings on the animal through his training and expertise in religious law, his opinions about dogs both derived from and were constitutive of a very intimate relationship between Egyptians and dogs in the early modern period. Canines were everywhere in this most lucrative of Ottoman provinces, and their many

![Figure 3.3 Dog Existing Happily and Unproblematically in the Social Fabric of Ottoman Cairo. Commissariat des sciences et arts d’Égypte, État moderne, vol. 2, pt. 2 of Description de l’Égypte, Arts et métiers, pl. 16. Beinecke Rare Book and Manuscript Library, Yale University.](image-url)
social roles thus deeply affected the cultural, political, environmental, economic, and—as al-Ashur shows—legal histories of Ottoman Egypt. In addition to religious and literary texts, historical chronicles and other narrative and archival sources further elucidate the essential and productive social and economic roles of dogs in human societies.

By all accounts, Cairo in the sixteenth, seventeenth, and eighteenth centuries was a city full of dogs. Antonius Gonzales, a Franciscan Recollect from the southern Netherlands who served as chaplain to the French consul in Cairo in 1665 and 1666, wrote that the city had innumerable dogs. Literally every street in Cairo was home to large groups of ownerless dogs who lived by eating rubbish and thereby helped keep the city clean. There were so many dogs that it was not uncommon to see packs of twenty or thirty of them following people as they walked. From the time one opened one's doors in the morning until closing them at night, it was a constant battle to prevent these street dogs from getting inside one's home. These large numbers of dogs were not simply the accident of a bustling urban setting; rather, they were purposely maintained and carefully cultivated by Ottoman authorities to keep streets clean of refuse. Killing these animals was illegal. Any person found guilty of violence against a dog or of killing the animal (or a cat) was strongly punished. This aggressive punishment of those who would harm dogs was likened to the censure of those who used force against the elderly or physically impaired—another parallel between dogs and those humans judged socially or physically weak.

Various institutions in Cairo existed to serve, protect, and maintain the city's canine population. Feeding bins and watering troughs were placed throughout the city to provide sustenance for these animals. Dogs were also regularly fed in mosques, many of which maintained large stone water basins at their entrances for dogs, mules, and other animals. Butchers, fishmongers, and various kinds of shop owners put dogs to good use as cleaning agents, guards, and helpers of various sorts. Dogs also kept unwanted vermin like rats, hares, and wild pigs out of the city.

Dogs were, in short, integral actors in the urban fabric of Ottoman Cairo. They served many useful social and economic functions, and their vast numbers were noted by all who came to the city. The daily constructive interactions of Cairenes with dogs meant that the religious, historical, and literary writings of this period were heavily infused with often quite positive takes on the animal. A work written at the end of the seventeenth century exemplifies how certain features of the traditional literature concerning dogs were usefully recast as these ideas were filtered through Egyptians' experiences and understandings of dogs and humans in the early modern period.

Unlike earlier stories—the man watering the thirsty dog with his shoe, for example—in a late seventeenth-century anthropological reversal, it was the dog that gave sustenance to a poor and hungry man. A formerly rich man had been overcome by debt and was left penniless. Hoping to regain some of his lost riches, he left his family and set off to seek a new fortune. He eventually
arrived on the outskirts of a town that seemed to have many wealthy merchants and estates. The man sat for a moment to rest before continuing on into the town. Another man soon came by with a group of four hunting dogs dressed in ornate silks and brocades with gold collars and silver chains around their necks. He tied his dogs and left to get them food, soon returning with a golden dish of sumptuous fare for each. The dog owner then left again to allow his animals to enjoy their meals. The poor and increasingly famished man hungrily eyed the dogs’ meals, but his remaining pride prevented him from making a move toward their food.

One of the four dogs, however, recognized the man’s abject hunger and motioned toward him as if to say, according to the account, “Come and take some of this food.” The man hesitantly approached, and the dog freely gave of his food. The man eagerly ate until he was sated. He then rose to take his leave, but the dog, in another in-between move, again motioned to the man indicating that he should take with him the remainder of the food and even the gold dish if he liked. Careful to make sure no human eyes saw him, the man put the dish in his sleeve and left the town for a different one where he promptly sold the gold dish for a great sum of money. This sale proved to be the turning point in the man’s fortunes. He bought many goods, started a business, and made enough money to repay his debts. He soon returned to his home village, where his recent spoils allowed him and his family to ease back into their generally comfortable former existence.

After some time, the man felt compelled to return to the town to thank and repay the dog and its master for the gift of their dish. The man set off for the town. As he approached it, he saw that the entire city had been deserted and had completely deteriorated to nothing but “crumbling ruins and cawing ravens.” As he reached the desolate town, he came upon a decrepit old man, who asked him why anyone would come to such a godforsaken place. The new arrival told the old man his story and that he had come back to repay those who had helped him so long ago. The old man guffawed, incredulously mocking the idea that a dog had knowingly given the man a gift. Frustrated, the traveling man left the city and returned home with the following verse on his tongue: “Gone are the men and the dogs together / So to the men and dogs alike, farewell.”

As in previous stories, the dog again sacrifices for the betterment and longevity of man. By giving up his food and the gold dish, the dog allowed the man to regain his economic and social station. This is lost on the old man at the story’s end. Weakened by age and poverty, he was ill-equipped to grasp the generosity of the dog. The man and the dog in this story effectively communicate and even converse as if sharing the same language. The apothegmatic final verse suggests an equality between human and dog, making the point that both are capable of empathy, care, and moral rectitude. The dog helps the man in the same way that masters provide for their dogs. The social world sketched in this story is one in which humans and animals engage in intimate and cooperative relationships of social reliance and sustenance—relationships in which man ultimately relies on dog, not the other way around.

Herds, Vomit, Hunt, Warfare, Affection

Dogs played numerous other productive social roles in Ottoman Egypt. One of these was acting as caretakers and protectors of flocks of sheep and herds of goats and other animals. As a learned herpetecholy man told a group of followers to prove to them the existence of dogs in heaven, “I saw that the Ninth Heaven was full of flocks of sheep and goats, and as you know flocks need dogs, which they are never without, and the shepherd has to have a dog to guard his flocks.” Dogs additionally played constructive and instructive medicinal roles for human communities, directing people on various issues of disease and treatment. For example, Egyptians learned through the observation of dogs which plants aided in the purging of the body. Dogs were well-known gluttons and had developed a strategy of consuming certain plants to induce vomiting. Medical practitioners in Egypt, from antiquity to the Ottoman period, thus learned from dogs which plants and herbs could be used to treat human stomach ailments.

There is also a long history of hunting with dogs in Egypt and other parts of the Muslim world. Rabbits, gazelles, hares, and other animals were some of the most common prey caught by dogs in Ottoman Egypt. Dogs were also used to hunt stags in Lower Egypt in the Ottoman period. The most common breed employed for both herding and hunting was the Egyptian greyhound and its close relative the salâqī. Depictions of greyhounds and salâqīs on the hunt exist from as early as the Middle Kingdom period (2134–1765 BCE). They are often shown running alongside a hunter’s chariot in pursuit of foxes, hyenas, onagers, and other desert creatures. Sometimes they are depicted moving in packs on leashes. The Egyptian pharaoh Ramses IX (c. 1131–1125 BCE) loved his hunting greyhound so much that he took the unusual step of being entombed with him. Egyptian greyhounds and salâqīs were so renowned for their hunting abilities that they were traded around the Mediterranean very early on, most likely during the Minoan period. They are thought to have reached southern Europe in Greco-Roman times.

Into the Islamic period, the salâqī continued to hold pride of place for hunters and herdsmen alike. Like other writers in the classical Islamic tradition, Abu Nuwas (d. 818) describes the use of greyhounds in nearly half of his poems about hunting. The Abbasid caliphs were avid hunters and regularly imported salâqīs from Yemen to Iraq for the task. These prized creatures were housed in structures built solely for their care, had strictly monitored diets, and received veterinary treatment for injuries and disease. The Muslim empires of the early
modern period greatly valued hunting dogs and participated in an active global
dog trade and network of gift exchange. In the Ottoman, Safavid, and Mughal
courts, hunting dogs were often found in very close proximity to the sovereign.
During his visit to Iran in the 1670s, Jean Chardin noted that it was only court
officials and nobles who were able to afford dogs, which they proudly celebrated
and displayed as symbols of status, wealth, and prestige. The Mughal court also
regularly sought out hunting dogs—tellingly known as the Persian hound (jaudi
hund). In the early seventeenth century, Mughal emperor Jahangir asked his
Safavid counterpart Shah Abbas to kindly send him a group of European
hunting dogs. Abbas sent nine mastiffs. Jahangir later also implored the British
envoy Sir Thomas Roe to procure for him more mastiffs, Irish greyhounds, and
"such other Dogges as hunt in your Landes." The Ottoman court too imported dogs
over vast distances. Mastiffs were regularly captured in Poland, Russia, and Moldavia
and then brought to Istanbul. Some dogs even came from as far away as China. A merchant visiting the
Ottoman Empire in the early sixteenth century wrote that "in the exalted courts
of the [Muslim] rulers toward the land of the Sultan of Rum [the Ottoman sultan],
there are such dogs which the Romans call the 'Sassini dog' but [which] by
origin is the Tibetan dog. And these Tibetan dogs are found in the mountains
of China and it is from there that one acquires these dogs." Even before the
early modern period, Ottoman sultans regularly sought out and celebrated dogs.
Sultan Murad I (r. 1362–89) was known to lavish ornate silver collars on his
beloved and prized hunting dogs. The many luxuries and precautions afforded
hunting dogs in the Muslim world, their importation over vast distances, and
the wealth and prestige they commanded were almost always in service of the
hunts. As a poet cited by the seventeenth-century Egyptian writer al-Shirbini succinctly puts it, "Hunters and dogs cannot live apart." To maintain their corps of hunting dogs, the Ottomans developed a very
sophisticated and expensive regime of canine training, feeding, and exercise.
The two main dogs used in the hunt were the greyhound (huz) and the spaniel
(zoqar), whose keepers were known as zuzalac and zaqarac, respectively.
Divided by breed, the dogs were housed in separate quarters in Uskudar. Each
of two very spacious rooms, up to sixty dogs were kept on extremely slack
chains fixed to the wall. Both rooms were heated by fireplaces at each end.
Sofas lined all four walls, and there were also sheepskins strewn about for the dogs
to sleep and lounge on. Each dog was walked and groomed by its handlers every
morning and evening. The dogs were so well fed and immaculately kept that a
French visitor to their lodgings in the early seventeenth century described the
canines as "marvellously polished." Dogs were also regularly used for military purposes in Ottoman Egypt. The
most common cadre of dog soldier used by Ottoman armies throughout their
early imperial conquests and by various military factions stationed in Egypt were
a group of mercenary dog keepers known in Ottoman Egypt as the saynboya. These soldiers were originally the keepers of dogs used as advance forces in military
campaigns. The animals would be sent in as a first strike team to mau
enemies and scare them from their positions. The saynboya were just one of
many factions within the Ottoman janissary corps devoted to the upkeep and
care of imperial hunting dogs. Others included the parnasibay, samsuncahs, and
zaqarcas. Still, the saynboya were the most prominent of these canine fighters and were regularly used to great effect. In a battle between the Egyptian
notables Ghiyas Bey and Ismail Bey Ibn 'Avvad Bey in 1714, for example, each
side used dogs to attack the other. Ghiyas Bey's men finally triumphed, thanks to
a combined force of sixty saynboya, muskets, cannons, and a group of hired
Bedouin troops.

Even Cairo's seemingly endless numbers of street dogs were used in war.
In 1711, a soldier named Muhammed Bey employed a regiment of street
dogs to aid him in attacking the 'Azab barracks near Rumaya Square in the vicinity
of the Cairo Citadel. He sent out his men to collect twenty dogs from the area
around the square. These men were then instructed to tie a wick to each of the
dogs' tails. The animals would be kept in a storehouse in the area until time came
to spring the attack. The wicks on their tails would then be lit, and they would be
released to run toward the 'Azab barracks. Cannon and musket fire behind them
would both provide cover and scare the dogs into running faster. Confused,
surprised, and terrified by this onslaught of熳 fashionable canines—the plan went—
those held up in the barracks would fire on the dogs, thereby exhausting their
ammunition. In the unlikely event that a dog actually reached the barracks alive,
this would have the better from the perspective of Muhammed Bey and his
attacking forces. According to al-Damardashi's account, in the end, this attack
plan failed and the barracks were successfully defended. Later that evening
after the battle, a soldier walking in Rumaya found one of the canine combatants
howling from the pain of his burned tail. He picked up the injured dog, took
it to his barracks, and attended to the animal's wounds.

In the previous stories of dogs sacrificing for humans—the dog who kills
himself by eating the king's poisoned pudding or the dog who defends the baby
by killing the viper—dogs give freely of their well-being and even lives to save
humans from destitution, danger, and death. A crucial aspect of these stories is
that the humans recognize the canine sacrifice that has saved them only after it
is too late. The feelings of guilt and remorse that result are meant to impart a moral
lesson. In the story of the soldier's compassion for the burned dog, however, the
animal's sacrifice and the human's remorse are of a very different order. The
animal does not willfully sacrifice himself, but is indeed sacrificed by the humans.
The human's remorse is for an act of violence committed knowingly, consciously,
and deliberately, not for violence done in error as in the earlier stories. Thus, by
the eighteenth century dogs acting compassionately, willfully, and selflessly on
behalf of human society were replaced by humans exercising a monopoly over
social agency and using animals as tools for selfish and worldly purposes, warfare
foremost among them.

Furthermore, the soldier’s show of compassion toward the dog in this final
story is one of only a handful of examples pointing to an affective relationship
between humans and dogs in the early modern period. It stands as an excep-
tion that indeed proves an early modern rule. As I have shown in this chapter,
although there were myriad constructive and productive relationships between
dogs and humans in early modern Ottoman Egypt, none of these indicate a
strong or widespread affective relationship between Egyptians and dogs (and
certainly not general human sensitivity or concern for animal emotion or pain).
The soldier did tend to the hurt battle dog, and hunters too seem to have cher-
ished their dogs, but these shows of affection derived not from compassion
but concern and respect for the social and economic utility dogs provided for
humans. While present-day human-dog interactions are principally mediated
through compassionate relationships of affection, love, comfort, and emotion,
in the early modern period the human-dog relationship was based primarily on
loyalty, security, aid, protection, productivity, the prestige derived from hunting,
and the utility of the canine consumption of waste. Dogs were, in other words,
useful and beneficial for human communities primarily because of their eco-
nomic, social, political, military, and pharmacological attributes and abilities.
Their value was not built on any emotional or affective basis.

Despite the virtual absence of an affective mode of interaction between humans
and dogs in early modern Ottoman Egypt, dogs were nevertheless conceptual-
ized as existing somewhere between the human and animal worlds. They pos-
sessed admirable and desirable human traits—loyalty, economic and social
productivity, keen perception, modesty, a willingness to sacrifice—often much
more so than many humans. They were thus kept close to human communities.
In various realms of life—from medicine to warfare to morality—humans and
dogs were engaged in cooperative and constructive—though, again, not affect-
ive—relationships throughout the Ottoman period. Dogs kept Cairo’s streets
clean, aided in military exercises, taught humans how to heal their own bodies,
cought game for political prestige, and helped maintain supplies of sheep and goat
meat. Recognizing the utility and importance of dogs to their multiple human
worlds, Egyptians and Ottoman urban authorities sought to support and safe-
guard these animals—to provide them with food, shelter, and protection. There
were even waafs (pious foundations) to support and protect canine welfare in
early modern Istanbul.12 Humans who perpetrated violence against urban dogs
were regularly and severely punished. Even during times of plague in Egypt, spe-
cial attention was devoted to dogs and cats to ensure their safety.13 Dogs were
thus recognized and valued for their unique and indispensable contributions to
many realms of early modern life and were intertwined with humans through
established modes of social, economic, military, and medicinal interaction.

At the same time, dogs were still set apart from humans as wild and ani-
malistic. They ate garbage, were ultimately instinctual, and shut and copulated
on the street. No matter how intertwined they were with humans, dogs were
always infinitely distant from the human realm. It was the maintenance of this
in-betweenness of dogs—ever-present yet forever other, human and nonhu-
man—that made them so productive for early modern Egyptians. They could
be used to keep the city clean and to mark a moral and existential difference
between humans and other animals. Needless to say, this multifunctionality of
dogs could only obtain in a situation of intense dog-human proximity and regu-
lar interaction like the one that existed in early modern Ottoman Egypt.

While this set of circumstances continued more or less throughout the early
modern period, it would drastically and dramatically change in the early nine-
teenth century and is thus a crucial indicator of the enormous shifts that marked
human-animal relations at the turn of the century. The social role of dogs would
change more in the decades around 1800 than it had for millennia. This trans-
formation would have monumental consequences for both humans and dogs
and for Egyptian society more broadly. As the next chapter shows, new notions
of public sanitation, hygiene, social organization, public health, and governance
would eventually render dogs’ former productive functions unnecessary, mean-
ingless, and then obsolete. Without a constructive and productive role to play
in human societies, dogs emerged primarily as sources of annoyance, disease,
pollution, and danger. As a result, it would soon come to be deemed necessary
to remove them from the realms of human habitation. Thus, paradoxically, as
affective bonds between humans and dogs began to emerge in the nineteenth
century partly to replace older social, economic, and ecological roles for dogs
in human society, widespread violence against the animal also increased. In the
early nineteenth century, dogs were no longer valued for loyalty, productivity,
utility, or security. They were certainly no longer used to draw equivalences
between the human and the animal. Dogs were indeed no longer anything but
animal. Dogs were no longer in-between.
Evolution in the Streets

The first master people kept a dog was to acquire an ally on the hunt, a friend at night. Then it was to maintain an avenue to animality, as our own nearness began to recede. But, as we lose our awareness of all animals, dogs are becoming a bridge to nowhere. We can only pity their fate.

—Edward Hoagland

In the early decades of the nineteenth century, dogs' in-betweeness became a problem in Ottoman Egypt. Canine in-betweeness posed a direct threat to the increasingly rapacious and powerful Egyptian state bureaucracy of this period. Dogs challenged its ideas and practices of order, its strict definitions of spaces and social roles, its disciplinary control and modes of policing, and its attempts to forge a legible society and economy. As the Ottoman-Egyptian state endeavored to make all of these governing ideals real, it faced not only a canine challenge but also the pressures of Cairo's rapidly increasing population and its demands for space and work. The main strategy the state administration employed to deal with the dog challenge was to attempt to remove the animal from the city entirely. This removal was primarily accomplished by pushing Cairo's trash outside the city's walk. With this social, economic, and sanitary function taken away from dogs in the first third of the nineteenth century, they were given new roles in Egypt—disease vectors, noise polluters, sources of filth, and menace to social order. These emergent ideas about dogs went hand in hand with new notions of disease etiologies, hygiene, urban sanitation, and governance—all of which reinforced the imperative to remove dogs from the city. Some humans did try to invent other novel and more accommodating roles for dogs in Egyptian society at the time—chiefly as companionate species—but these efforts were overwhelmed by the dominant wave of recently imagined and more troublesome roles and attributes ascribed to dogs.

These shifts in the human-dog relationship in the early nineteenth century had many enduring consequences. Attempts to remove dogs from Egypt's cities resulted in interspecies violence on an unprecedented scale. The radical alteration of Cairo's urban environment separated dogs from urban waste for the first time in millennia, creating a divergent evolutionary pathway for dog species in Egypt. The Egyptian example therefore shows how, in the environmental historian Edmund Russell's words, "the state has been an evolutionary force." What happened to dogs in this period forever changed understandings of governance in Egypt and shaped the relationship of both the human and the nonhuman populace to the state. In the early modern period, the loyalty of the animal was to his individual master, and the master had both a monopoly of control over his animal and a set of responsibilities to that creature. In the nineteenth century, the singular master in Ottoman Egypt became the state. Loyalty, allegiance, and deference—canine and otherwise—were to be given exclusively to the state. The state, rather than families, households, or individuals, was to be the sole and final arbiter and caretaker of life, economy, and society. These understandings and practices of governance affected the lives of Cairo's street dogs before they targeted Egypt's humans. The independent and sovereign dog master or, even more problematic, the unattached street dog with seemingly no interest in any human connection, could not continue to exist under Egypt's new state regime of order, fixity, and control.

Dogs' social, political, and economic fortunes were thus forever reshaped in this period. So too were their biological futures fundamentally set on a new course. The history of dogs and their many relationships at the turn of the nineteenth century reveals that nearly every aspect of interspecies interactions, from the place of dogs in Cairo to canine evolutionary biology, was altered by the epochal transformations in Egyptian society in this period. The forceful consequences of these new modes of rule in Egypt that forever changed dogs' lives and genes would also soon come to echo in the lives of humans and other creatures.

On the Prowl

Dogs were removed not just from Cairo but from rural Egypt as well. As domesticated animal populations declined at the end of the eighteenth century and human laborers came to replace them as the preferred tools of rural agricultural work in the early nineteenth century, dogs became less important as guards and night watchmen over other animals. Fewer livestock in the countryside meant dogs began losing their roles as overseers of herds, historically one of their principal functions in human societies.

What replaced dogs as guardians of personal property in the Egyptian countryside were law and the police. The most important new instrument created by Mehmet 'Ali's state to order, monitor, manage, and administer the countryside was the 1830 Law of Agriculture (Qānūn al-Fihā), which unintentionally but
directly dealt a severe blow to the roles of dogs in rural Egypt. The fifty-five individual statutes of the law have a lot to say about domesticated animals and tellingly nothing to say about dogs.6 The protection of livestock was completely given over to the work of bureaucrats dispatched to the countryside. These legal and policing agents were tasked with ensuring that animals were not wrongfully taken from their owners, and if they were, that the thieves were adequately punished. Instead of a dog's snarl, growl, or howl, bureaucrats, legal statutes, and administrative proceedings now protected individuals' personal property. Just as peasants replaced animals as the bulk of Egypt's rural labor regime, so too did human representatives of the state and the law replace dogs as guardians of domesticated animal populations.

For example, statute thirty-four of the 1830 law served to fulfill dogs' former function of protecting fields from the intrusion, destruction, and consumption of other animals.10 The new law stated that if a domestic animal that ate or otherwise damaged a farmer's crops was determined, after investigation, to have escaped because of its owner's negligence or been intentionally let loose, the owner had to financially compensate the victim for the damaged goods and was also subject to fifty lashes.11 If it was determined that the offending animal's owner was not at fault and that the animal acted of its own volition, the owner was still held responsible but only had to pay the price of the damaged crops. Whereas dogs used to defend fields from the threats of wandering feral animals, the logic of the centralizing Egyptian state in the early nineteenth century determined legal statute to be a superior and more desirable form of property and crop protection than dogs.

Another clause in the 1830 law charged the village qaimmaqam or shaykh with the responsibility of preventing animal thefts in the countryside.12 If such a theft occurred and was prosecuted, the thief would be required to pay the animal's rent to the owner and would also be punished with twenty-five whips of the kurbanj. Here again, humans and law replaced dogs in their former role as guardians of domesticated animal herds. Dogs used to try to scare off thieves; even when they could not prevent a theft from occurring outright, they were crucial in helping to alert others. In the early nineteenth century, the responsibility for discovering and deterring thefts in rural Ottoman Egypt was transferred from dogs to village qaimmaqams. Other relevant sections of the 1830 law outlined punishments for those who killed another person's domestic animals,13 stipulations concerning slaughter,14 and penalties for the illegal sale of animals.15

Taken together, these new regulations were a key aspect of Mehmet 'Ali's attempts to institute a novel regime of order in the Egyptian countryside.16 Part of this effort included replacing what were deemed ineffective procedures and unadministrable actors with the ordering, rationalizing, and legitimitizing control of a centralized bureaucracy and legal code.17 While perhaps not intentionally aimed at stripping dogs of their productive social and economic functions in the countryside, the 1830 agricultural law was one of the most important legal instantiations of a new rural reality that shaped, and was shaped by, larger processes affecting the human-animal relationship in early nineteenth-century Egypt. This new reality involved increasingly interventionist governing techniques, capitalist market relations, and fewer dogs.

Kill the Dogs

As in the countryside, in Cairo human police also came to replace dogs as means of security. The removal and replacement of dogs in urban security first emerged under the occupying regime of Napoleon's army during its three-year incursion.18 On the night of November 30, 1798, French military forces undertook a campaign to rid Cairo of the many dogs that constantly harassed them during their nighttime security marches.19 Engaging in the security function they had upheld for centuries, these dogs harangued the strange and unknown French troops who patrolled Cairo's streets, barking at them and chasing them from lanes and alleyways.20 To rid the city of what was to them a nuisance and security risk, these soldiers walked through Cairo's streets that November night with baskets of poisoned meat that they fed to as many dogs as they could find.21 By morning Cairo was filled with dead dogs.22 Men were hired to remove the dog carcasses to dumps outside the city where the bodies were in all likelihood burned.23 This massive dog eradication effort was the first documented episode of systematic and sweeping dog killing in Egypt.24

Almost two decades later, there was a similar instance of violence against Cairo's dogs that specifically invoked the earlier French incident. On September 10, 1817, the Egyptian pilgrimage caravan left Cairo for the Hijaz. That year there was a shortage of boats to transport pilgrims across the Red Sea from Suez to Mecca and Medina. Many of these pilgrims, some of whom had traveled great distances from North Africa or southeastern Europe, had no choice but to return to Cairo disappointed that they were unable to complete their journey. This massive influx of people led to enormous congestion in the city, which was doubly magnified by the chaos caused by the many infrastructural projects Mehmet 'Ali was undertaking in Cairo at the time. Not only was the city crowded with people, but many lanes and alleys were also clogged with raw materials, merchandise, foodstuffs, wood, and dirt from construction sites. Horses, donkeys, and camels were also jostling for space, since they were used to carry building materials and to remove stone, dirt, and rubble from construction sites.25 The
in creating various industries and an administrative infrastructure for military training and education is a well-known phenomenon. Less well-known is that this emulation of colonial European politics and violence also played out outside of the formal institutions of the state.

In contrast to the earlier French violence, the dog killings of 1817 were not based on any explicit security or military concerns. Rather, issues of public order and urban density—such as noise, pollution, annoyance, and social necessity—were, by the 1810s, the most exigent concerns for those seeking to rid Cairo of its dogs. Other dog eradication attempts by Mehmet 'Ali's government in this period also invoked these anxieties as justifications for the removal of dogs from Egypt's cities. In one such operation, Mehmet 'Ali sent his men out to round up as many dogs as possible from Cairo and Alexandria. These animals were then loaded onto a ship in the harbor of Alexandria, and the vessel was sailed out to sea and sunk so as to rid Egypt's streets of these canines in one fell swoop. At roughly the same time (in the late 1820s) for roughly the same set of reasons, Ottoman sultan Mahmud II similarly attempted to rid Istanbul of its street dogs by rounding them up and sending them to an island in the Sea of Marmara. The vessel carrying these dogs, however, capsized near the city's shore, and the unwanted canines swam back to Istanbul. Issues of public order, urban health, sanitation, annoyance, and disease control were thus the primary factors shaping the human-dog relationship in urban Egypt (and elsewhere, of course) in the first half of the nineteenth century.

This sort of mass violence against dogs was new to Egypt in the early nineteenth century and was largely unthinkable a few decades earlier. How to explain this gigantic shift in the human perception and treatment of animals? Where did all this violence come from? Part of the answer to these questions lies in the clear distinction al-Jabarti makes in his account between useless street dogs that barked and prevented sleep and the implicitly more civilized and socially valuable "earth and its inhabitants." This distinction evidences the new and growing gap being forged in Egypt in this period between the human and the animal. This gap emerged in the countryside through shifting labor regimes that made human labor vastly more important than animal labor, thus separating the work of the two species as never before. In Cairo and elsewhere, the founding and expansion of numerous governmental, educational, military, and legal establishments came to define the human realm much more clearly in this period as a regulated and controlled space of learning, health, law, policing, and bureaucratic productivity. Dogs blurred the boundaries of these increasingly protected and policed spaces, literally and figuratively crossing into them when they were not supposed to—even shitting in them—and therefore presented a direct challenge to the growing authority of the state's bureaucracy. Like the human social world, the realm of the animal was becoming much more starkly defined, closely

Add to all this the packs of dogs, sometimes as many as 50 in one street, continuously barking and howling at passersby and one another, disturbing everyone especially at night and making sleep impossible. The French did well in killing these dogs. Once settled in Cairo they saw that these large packs served no need or purpose [mita ghayri ḥaṭa wa la manfū' al] except barking and baying at them in particular since they were strangers. Therefore a party went around the city with poisoned meat and by morning all the streets were littered with dead dogs. Adults and boys dragged them by ropes into vacant lots outside the city; thus the earth and its inhabitants (al-urd wa man fiha minha) were rid of them.

As the praise and invocation of earlier French anti-dog efforts suggest, Egyptians were more than happy to borrow the ideas and practices of large-scale dog eradication measures from the French. Like other techniques of Egyptian governance in the early nineteenth century, the state's treatment of dogs largely derived from Mehmet 'Ali's perception and desired emulation of European ideas and models of rule. His employment of European advisors and consultants to assist him
managed, and spatially constricted-off in the early nineteenth century. This widening gap between dogs and humans made it much more palatable, even desirable and obligatory, to enact violence against dogs and eventually attempt to do away with them altogether. If a parallel human world could easily exist without the need for dogs to undertake productive social functions—humans or other social actors having taken over these tasks—then why keep dogs around at all? Dogs thus became a problem in Cairo not through any action or fault of their own but because of the changing anthropological state around them. One of the solutions to this problem was to kill the dogs.

A Dirty Job, but Somebody's Got to Do It

The changing relationship between Cairo and its dogs was a phenomenon found in cities across the Ottoman Empire and throughout the world in this period. From Istanbul to Seattle, dogs in cities since the nineteenth century have been markers of both civilization and uncivilization. In modern America, most sophisticated urbanites want dogs, but only if secured on leashes and if their feces are collected by their owners. Dogs on the loose or without the proper vaccinations are a telltale sign of urban disorder. Similarly, in late nineteenth-century Istanbul, reformers debated what the presence of so many street dogs in the city meant for the city's status as a modern ordered metropolis and what, if anything, should and could be done to remove them.

In Cairo, the first half of the nineteenth century represented a time of reordering, sanitizing, clearing, and building in the context of a massive influx of people to the city. Streets were cleared of dirt, garbage, and debris. Quarantine measures were instituted as a means of controlling disease. Lakes, canals, and other urban bodies of water were drained and filled in to remove what were thought to be problematic sources of disease and to provide more land for urban expansion. All of this, of course, had important consequences for Cairo's street dogs.

For Mehmet 'Ali's government, street dogs were bothersome pests, potential disease vectors, and dirty beasts that had to be expunged from the city. Mehmet 'Ali's plans to clean and reorder the city thus included a campaign to remove dogs from the spaces they had historically inhabited and to take from them their essential role in urban life as consumers of the city's garbage. Intertwining efforts in the early nineteenth century to cleanse cities of canines and to reorder urban trash removal thus altered the human-dog relationship more profoundly in a few decades than had centuries of interspecies relations before that.

In the seventeenth and eighteenth centuries, Cairo's street dogs drew their sustenance from the food and water provided by Ottoman authorities, from what they could forage on the city's bustling streets, and most importantly
from Cairo's many trash mounds. Cairo was renowned for its garbage mounds, so much so that these heaps of trash and the many dogs they supported made Cairo a point of reference for cities across the globe. When visiting China in the middle of the nineteenth century, for example, the British traveler George Fleming was reminded of what he had seen in Cairo years earlier: "Closely allied to the Pariah dog of India, the savage pests of Cairo and Egypt generally, those of Syria, and those snarling droves which we have been so often obliged to pet off with stones by moonlight, in the narrow streets of Stamboul,—the Pariah dog of North China is, like them, allowed to breed and to infest the towns and villages free from disturbance, to congregate on the plains or in the field during the day, or to kennel in the graveyards; while at night they prowl about the streets like our scavengers at home, sweeping off the quantities of filth and trash that strew the thoroughfares." Thus Cairo's dogs joined those of other cities in the Ottoman Empire as the globe's archetypal street dog.  

The garbage mounds these canines ate from were often the first sights visitors saw as they approached the outskirts of Cairo from the Nile in the west, and they also served as elevated vantage points allowing visitors to view the city off in the distance. These extramural mounds were the result of centuries of the city's residents disposing of their garbage by throwing it over the walls and away from view. Over the years, there thus accumulated "an almost continuous band of high mounds which virtually surrounded the city on all sides." These mounds even came to serve a protective function by reinforcing the city's walls, and they were also some of the highest available lookout points for guarding the city. During the French occupation, Napoleon's soldiers took advantage of the elevated position provided by these mounds to build watchtowers and defensive positions on top of them all around the city. For Cairo's dogs, the city's mounds were especially inviting. They would comb through the debris to find anything of consumable interest and leave the rest. The mounds inside the city walls were less impressive than those outside but were nonetheless noticeable to all who visited Cairo. These intramural mounds were much smaller than their extramural counterparts primarily because the city's dogs kept them in check. They had learned over the years that the freshest and best food scraps and other waste were to be had inside the city, and there was thus fierce competition among Cairo's street dogs for the choicest intramural morsels.  

At the end of the 1820s and the beginning of the 1830s, Mehmet 'Ali and his son Ibrahim took to clearing these rubbish mounds. From their perspective this was a crucial step in solving some of the city's major infrastructural, demographic, and planning problems. They sought to remove these mounds to make room for more construction to serve an ever-expanding population and to rid the city of what they took to be stinky sources of disease. These cleared garbage mounds could then be put to good use filling in the city's many swamps and lakes, another major component of urban reform in this period. A British traveler visiting Cairo in December 1832 observed that Cairo's dirt and garbage, "when carried out of the city, is not thrown, as formerly, into heaps, but is employed in filling up the pits, hollows, and inequalities which are found in the environs. In the meanwhile all the old mounds of rubbish are clearing away at a vast expense, and the land thus gained is laid out in gardens and olive plantations." Throughout the early 1830s, Ibrahim used refuse to fill in and level land across Cairo and its vicinity. Garbage mounds were cleared to make room for building on the site that would become Garden City; soon thereafter, Ibrahim ordered trees to be planted and roads to be constructed there. The trash from this area was taken to fill in the lake of Birkat Qasim Bey in the southern part of the city. This newly reclaimed land was then also developed. Later in the 1830s, other rubbish heaps were cleared from the northern and northwestern sections of the city to fill in lowland areas around the new road between Bulaq and Azbakiyya.
While the removal of garbage mounds increased the amount of urban land available for human construction, the process was detrimental to Cairo's dogs. It deprived them of important sources of food and places of congregation. Many accounts of the work undertaken to clear these trash mounds note the intense barking and "savagery" of the dogs watching the removal of the mounds they used to frequent for sustenance. Dogs clearly understood that the world around them was drastically changing for the worse. From the perspective of the humans who shared the city with these dogs, removing Cairo's garbage mounds meant the animals were becoming increasingly irrelevant. What good were dogs in Cairo if they no longer helped to keep the city clean? It was not simply that dogs were no longer useful and productive for human communities, but they were also judged to be directly detrimental to urban life. As ideas about disease changed in the early nineteenth century and sickness became understood as a function of the physical and natural environments around human bodies, large groups of mangy, smelly, dirty dogs were deemed increasingly undesirable in the midst of large human populations. Thus the issue of Cairo's garbage and the dog populations it supported crystallized three major problems related to the governance of the city: waste removal, disease, and the availability of usable space.

The first problem was what to do with massive amounts of human and human-generated urban waste. With more people producing more garbage and more pressure for housing space, the solution to this problem was to either move waste outside the city altogether or collect it to fill in Cairo's urban lakes and ponds. The second related issue was how an expanding urban population impacted conceptions of disease in Cairo. Urban proximity—between individual humans and between humans and other animals—created anxieties about how diseases developed, moved, spread, and were cured. Mehmet 'Ali and most of his governmental officials—in contrast to the majority of the European medical community in Egypt—were contagionists. They believed that physical proximity to the sick and to filth made the healthy more vulnerable and susceptible to disease. Smelly piles of garbage, dank bodies of water, and scraggly dogs all came to be seen as potential disease vectors that needed to be expunged from society. As the historian Khaled Fahmy observes about this period, "It was the concern about the city's smell, informed as these concerns were by the dominant miasmatic theory of the spread of diseases, that informed most of the authorities' policies." These new ideas about the relationships among disease, place, and the human body made dogs of medical knowledge, government action, and urban policing in unprecedented ways in Egypt. Finally, anxieties about disease and Cairo's garbage impacted human-dog relations by pitting humans against dogs in a situation of increased pressure on and competition for scarce resources and shrinking urban spaces. In a landscape in which space was at a premium and in which dogs no longer possessed productive social and economic functions, a novel, adversarial relationship developed between the two species. In this newly competitive and hostile interspecies arena, it was quite obvious that human populations had the upper hand and would soon use that advantage to violently push dogs and other creatures out of Cairo as they took over the spaces these animals used to inhabit and control.

Man's Worst Friend

Another major consequence of the decline in dog populations in Cairo was a change in human attitudes toward dogs. They came to be seen much more negatively in the early nineteenth century and with more revulsion, fear, and violence than had been the case for at least the previous millennium. The perceived negative characteristics of dogs—some old, some new—emerged as the most dominant human view of the animal: ritual impurity, annoyance, danger, the potential for disease, fecal waste. Edward William Lane, a British orientalist resident in Egypt at various points during the late 1820s and 1830s, identified the shifting attitude of Egyptians toward animals:

In my earlier intercourse with the people of Egypt, I was much pleased at observing their humanity to dumb animals... Murders, burglaries, and other atrocious and violent crimes, were then very rare among them. Now, however, I find the generality of the Egyptians very much changed for the worse, with respect to their humanity to brutes and to their fellow-creatures. The increased severity of the government seems, as might be expected, to have engendered tyranny, and an increase of every crime, in the people: but I am inclined to think that the conduct of Europeans has greatly conduced to produce this effect; for I do not remember to have seen acts of cruelty to dumb animals except in places where Franks either reside or are frequent visitors, as Alexandria, Cairo, and Thebes [Luxor].

Lane clearly blamed this shift from the humane to the violent treatment of "dumb animals" on European influence—the French precedent of dog bulls bears this out—and also linked it to the "tyranny" precipitated by new government regulations and administrative practices. Not only was Mehmet 'Ali's state becoming more exacting, intolerant, and cruel in its treatment of Egyptian animals, but it was also increasingly perpetrating this violence against Egyptian humans, leading them, Lane opines, to become more violent toward one another. It would thus seem that Egyptians' disgust of dogs—and increasingly
of certain humans—and the notion that canines were only impure (najas) with no redeeming productive social or moral capacities were ideas cemented in this period. Unsurprisingly, as Lane confirms, this was also the period in which violence against dogs first began to be perpetrated on a wide scale in Egypt. For the first time in Egypt’s history, dogs were now frequently beaten on Cairo’s streets for nothing more than “mere wantonness.”

Another outcome of Egypt’s shifting interspecies terrain was the emergence of the potential for a very different kind of relationship between humans and dogs, one that would fully develop only later. Since dogs were no longer primarily consumers of urban trash and were not, of course, entirely removed from Cairo, some of them came to play new roles in Egyptian society as companion animals. For elite Egyptians, dogs would become widespread as pets only in the late nineteenth century. There are some earlier glimpses of the developing affective relationships between humans and dogs, but these examples largely stand as exceptions that prove the rule.

In the 1830s, a lonely Cairene woman’s dog died. With “neither husband nor child nor friend,” this woman’s most trusted and beloved companion was her dog. When he died, she determined, against observed practice, to honor him with a proper Muslim burial. Rather than a quiet and unceremonious interment in a solemn burial site, she resolved to have her dog buried in one of the most sacred and important burial grounds in Cairo, the cemetery housing the tomb of al-Imām al-Shāfi‘i. She washed the body as prescribed for a proper burial, wrapped the corpse in the appropriate shroud, and prepared a bier on which to mount the body. She then hired reciters of the Qur’an, chanters, and wailing women to perform the appointed lamentations and final rites for the body as it was processed through the woman’s neighborhood to the cemetery. All of this was done with the ceremony appropriate to any proper human burial. As the procession moved through the city, many of the woman’s neighbors whispered among themselves, unsure as to who exactly had died since all assumed the woman had lived alone and had no immediate kin. Since no one knew this recluse woman well, none ventured to ask her about the identity of the corpse on the bier.

After some time, someone eventually did question the woman about who had died, and she answered, “It is my poor child.” Hearing this, a group of her female neighbors accused her of lying since it was well-known that the woman did not have any children. In an attempt to keep her secret from spreading any further, the woman confessed to these neighbors that it was her dog who had died and begged them not to tell anyone. Before long, however, word got out to the assembled crowd that the funeral procession they were a part of was for a dog. The ceremony immediately came to a halt, groups of men gathered and screamed at the woman for her insolence and disrespect, the hired chanters and Quran reciters cursed the woman for embarrassing them, and the police quickly assembled to protect the woman and prevent a melee.

The love and compassion of this woman for her dog—the only real companion she had in the world, her “child” as she put it herself—is perhaps unsurprising to us today. She knew that giving her dog a proper Muslim burial in a prestigious cemetery near the tomb of al-Imām al-Shāfi‘i was entirely inappropriate according to established Islamic ritual and observed Egyptian practice, but she nevertheless accepted the risk of her actions to honor her beloved companion, trying all the while to hide the identity of the body underneath the shroud. The violent and intense reaction of the processional crowd at the discovery that this ceremony was for a dog—and at the realization of such a close affective relationship between a human and a dog—belies the shifting early nineteenth-century Egyptian attitude toward the animal. It was clearly unacceptable in this period to allow a canine to participate in a ritual designed to commemorate the human dead.

In the early nineteenth century, the vast majority of Egyptians likely had no idea that Muslims and dogs had been in intense communion for centuries since the time of the Prophet, let alone that, according to some hadith, the Prophet himself sometimes prayed in the company of dogs. Earlier complex arguments that had been developed and debated by Muslim scholars for over a millennium in nuanced and careful treatises about the positive nature of dogs—their loyalty, protective capacities, intellect, and productive social and economic functions in human societies—were beside the point. Instances of compassion toward the animal, of learning about the medicinal properties of various plants by observing his behavior, or of giving him a proper burial among human graves (a phenomenon with many precursors as we have seen) were all immaterial. A new human-dog order was being forged, one that separated the two creatures into two distinct realms. This was likely the period in which the modern conventional notion that Muslims always considered dogs ritually impure (najas) came to take hold as the most common understanding of the human-dog relationship in the Muslim world. Treating a dog like a human—whether in life or death—was deemed a social and interspecies transgression that almost no Egyptian could tolerate in the early nineteenth century.

Thus, the story of dogs in Cairo during this period suggests something of the incongruous contradictions of the history of humans’ relationships with animals. Dogs’ smell, movement, barks, and waste were rarely problems for Egyptians before roughly 1815, but in the span of only a few decades, they emerged as the conceptual pillars of a project to remove dogs from Egypt. Yet even as dogs were being set apart from many parts of the human realm, some Egyptians would eventually bring them into their homes to develop affective relationships with them. These compassionate relationships were not widely recognized or
revered in the early nineteenth century and would only become widespread in the twentieth. Dogs thus elicited and held in productive tension both human desire for their work and affection and human aversion to their animality and instinct. They existed on the razor's edge between the human and the animal—intimately close in emotion yet infinitely distant in biology. After living closer to the human side of the human-animal line for millennia, or at least productively straddling both sides of the line, dogs in early nineteenth-century Egypt were marked as exclusively animal. The history of the emergence of this razor's edge between the species is a mix of human choice, unintended evolutionary causes and consequences, and dog agency.

**Stinky Evolution**

The history of Cairo's changing relationship with its garbage in the first third of the nineteenth century, and the consequences of this history for the city's dogs, is a story of evolutionary proportions. The leveling of the city's garbage mounds ended one of the most important historic and evolutionarily conditioned roles of dogs in human communities. Canine garbage consumption was no longer a trait selected by humans, and for many decades in the nineteenth century, humans would not select for other dog traits. Only later in the century would they come to seek out other specific characteristics for their canines such as cuteness or breed purity. In the middle decades of the nineteenth century, dogs were chiefly pariahs with no perceived productive social or economic functions. Garbage had been taken away from them, and they were not yet pets.

While contemporary interactions between humans and dogs revolve primarily around petkeeping and affective bonds, for the vast majority of the thousands of years of dog-human relations these interactions were built around the canine consumption of garbage. Dog domestication itself is a story of human trash, which is why the Egyptian case elucidates how robbing dogs of their roles as consumers of urban waste was a process with evolutionary consequences. Ten thousand years ago, *Homo sapiens*—only about ninety thousand years old at the time—moved from being a predominantly nomadic species to one that started settling down into sedentary communities. These fixed settlements began to accumulate large amounts of waste, which early humans usually disposed of very close to their living spaces. Some of this waste included excess food and animal products that these *Homo sapiens* chose to avoid. Scavenging wolves eventually stumbled upon this free and relatively easy source of food. Some wolves were probably too scared or too put off by the sight or smell of these early humans to approach the discarded food. Some others though did come and take it. This was the first in a series of selections. Wolves who were braver and less fearful of human communities became consumers of their food waste. This early trash thus brought humans and wolves into closer proximity than they had ever been before and was the first step in a long process of domestication.

Over generations and centuries, many humans began to recognize the benefit these wolves offered and came to tolerate their presence on the outskirts of their settled communities. Of course, humans tolerated the calmer wolves most, and perhaps some even developed constructive working relationships with tamer wolf pups, realizing that they could be put to good use for hunting and other productive activities. At a certain point, because of direct human intervention, the wolves' own selected physical proximity to one another, or some combination of these and other factors, tamer wolves began breeding with one another. Breeding among those wolves who had come into close contact with humans genetically instantiated behavioral differences. Thus began a gradual separation of the genetic lines of wolves who had been interacting with humans for generations from those who had stayed away from humans. Over many generations, tamer and tamer wolves eventually emerged with physical and behavioral characteristics quite distinct from their wild wolf ancestors. At the same time, humans killed, drove off, or ran away from those wolves and other animals for which they did not have any desire or use. The result was that only those animals that would readily submit to human actions and could be easily controlled remained in the gene pool available for wolf domestication. These wolves thus came to be selectively bred through interspecies interactions and choices for certain characteristics humans wanted or found attractive and useful. After thousands of years of this process, it became clear that the wolves with which humans were interacting were actually no longer really wolves at all, but distinct early versions of many dog species. Thus human preference and selection for utility, tameness, and general agreeability; wolves' attraction to human settlements and their choices to stay close to these settlements; and of course a good dose of chance, serendipity, and unintended consequences made dogs out of the wolves who first came to forage in human garbage about ten thousand years ago.

In the years between this first period of domestication and the early modern centuries, human preferences, dog behavior, and the human-dog relationship developed in many disparate and undetectable directions. Along the many twists and turns of this evolutionary history, one important trait was consistently desired—the human preference for dogs that consume garbage. For much of human history, dogs were thus one of the preferred and principal means of dealing with the problem of what to do with the things humans no longer wanted and that caused them revulsion.

Dogs stopped eating garbage in Egypt in the 1830s. Only in the early twentieth century would Egyptians start using dogs for affective purposes and as signs of class distinction and urban domesticity. Dogs were therefore in a kind of
evolutionary holding pattern from roughly 1840 to 1920—between a period when one of their traits that had been desired for thousands of years was no longer being selected for, indeed was actively being destroyed, and a new epoch in which affective bonds would emerge as the most important form of interaction between dogs and humans.

Although it may initially seem surprising, a few decades is ample time for an evolutionary divergence to take place. As Dmitriy K. Belyaev’s famous experiments with tame and wild foxes in the 1950s and 1960s show, selecting for certain behavioral traits can biologically change an animal’s genome in just fifty years.38 The enormous changes that occurred in Cairo at the turn of the nineteenth century, changes that altered what behavioral traits dogs were (and were not) selected for, gave them a new behavioral evolutionary niche and therefore physically modified their genes.39 Following from Edmund Russell’s claim that “the state has been an evolutionary force,” the case of Cairo’s dogs shows how the state could operate at the level of both the urban built environment and the genome.46

These colossal biopolitical shifts in human-dog relationships and in the dog genome around the turn of the nineteenth century are just two examples of the epochal changes historians and scientists are increasingly identifying as characteristic of an era termed the Anthropocene. This is the name given to the period from roughly the last half of the eighteenth century until the present day, a period during which human actions have come to affect the earth, oceans, and atmosphere on a global and most likely irreversible scale.50 Humans in the early twenty-first century directly impact over 60 percent of the world’s land surface; they shape 41 percent of the world’s marine environments; over two-thirds of fisheries have been depleted, exploited, or overexploited because of human harvesting; humans have caused the extinction of over a quarter of bird species; humans consume 40 percent of the plants grown in any given year; and human activities result in the emission of 160 tons of atmospheric sulfur dioxide per year, more than twice the amount of the earth’s naturally produced emissions.51 Since the late eighteenth century, humans have, in other words, become a global geological, atmospheric, and ecological force as never before.52

The term Anthropocene was first coined by the Nobel Prize-winning Dutch atmospheric chemist Paul J. Crutzen in 2002.60 Interestingly, the periodization he offers and that scientists and historians generally accept neatly maps onto the period of transition analyzed in this book. Crutzen writes, “The Anthropocene could be said to have started in the latter part of the eighteenth century, when analyses of air trapped in polar ice showed the beginning of growing global concentrations of carbon dioxide and methane. This date also happens to coincide with James Watt’s design of the steam engine in 1784.”61 This was also the year the Laki Fissure erupted in Iceland contributing to drought, famine, and disease in Egypt.62 It is clear that the last three decades of the eighteenth century represented a fundamental moment of atmospheric, geological, ecological, and therefore human flux and transition for Egypt and the entire globe. In trying to understand the changes that occurred at the turn of the nineteenth century in Egypt and throughout the Ottoman Empire, historians must account for the transformations in energy, atmosphere, biota, and human connections to nature captured under the rubric of the Anthropocene. Are Selim III, Mahmud II, Napoleon, and Mehmet ‘Ali products of the Anthropocene? It seems unlikely that the massive political, social, and economic changes that reformed the Ottoman Empire around the year 1800 are unrelated to these more fundamental global shifts.66

This chapter maps just one of the manifestations of this global transition from Holocene to Anthropocene—the violent and sweeping reworking of physical spaces and of the environments that shape the evolution of species.67 Urban dogs’ environments in Egypt were radically altered in the first half of the nineteenth century, beginning a process that set them on a slightly divergent evolutionary track. Evolution is, of course, a constant process, but that does not put it outside of history. Indeed, the history of dogs in Ottoman Egypt represents an empirical story of one particular turn in the evolutionary history and historical evolution of a specific time and place.

The period from 1770 to 1840 was a wrenching one for dogs and humans. Dogs’ roles in human societies, their urban environments, the way humans came to interact with them, and indeed their very biology changed more in these few
decades than they had for millennia. Behind these social, political, economic, and evolutionary transformations were changing notions of disease, urban sanitation, population management, and governance. The Egyptian state had become the only viable master of both dog and human.

There are few street dogs in Cairo today. Garbage removal remains a challenge in the city, but dogs are generally no longer considered part of the solution. Some in the Egyptian bourgeoisie—Muslims and non-Muslims alike—keep dogs as pets in their homes and apartments. As a sign of just how distant humans and canines have become in Egypt, dogs are also—curiously to some—found in the Cairo zoo. Except for the few who can afford the food, space, and vaccinations required, Canis familiaris has become anything but familiar in Cairo.
During the pilgrimage season of 1891, a somewhat more forceful insinuation of animals was undertaken by British authorities. Troops were dispatched with the specific aim of collecting animals from Bedouin communities since it was known that they possessed large numbers of donkeys, horses, and mules. Moreover, as in 1779, troops were stationed on all the roads leading to and out of Cairo (and other major cities) to seize any donkeys, mules, camels, horses, and other beasts of burden that were ridden or otherwise moved into or out of the city. In contrast to 1779, however, no consideration was made in 1811 for the status of the person on the animal. The collection of animals for the pilgrimage in the early nineteenth century was an expensive and efficient process that stopped riders from animals altogether for fear that they would be taken from them. Ibid., 41. As these cases show, the annual pilgrimage was one of the important factors exerting pressure on Ottoman supplies.


145. On Surak, ‘Egyptian Times: Temporality, Personhood, and the Technocapital Making of Modern Egypt, 1830–1930’ (Ph.D. diss., New York University, 2009), John Galloway writes that Mehemet Ali began seeking foreign consolation, including from Galloway’s brother, on the feasibility of a Cairo-Suez rail line ten years before the publication of his account in 1844. John Alexander Galloway, Communication with India, China, etc.: Observations on the Best Canal, the Basile Canal, and the Suez Railroad (London: John Wale, 1894), 32. Thus, even though construction of the first rail lines in Egypt began only in 1851, it was in the middle of the 1830s (and probably even somewhat earlier) that ideas to link Cairo and Suez by rail began to circulate. (Hedive Abbas, Mehemet Ali’s grandson and eventual successor, hired the well-known British civil engineer and member of parliament Robert Stephenson to oversee the construction of Egypt’s first rail line between Cairo and Alexandria. For a copy of the contract for this work, see TNA, CO 1069/855 (12 July 1851). On the life and career of Robert Stephenson, see Michael R. Bailey, ed., Robert Stephenson—The Energised Engineer (Aldershot, UK: Ashgate, 2003); Derrick Beddard, Stephenson’s Britain (Newton Abbott, UK: David and Charles, 1984); L. T. C. Rolt, George and Robert Stephenson: The Railway Revolution (London: Longmans, 1960).

146. On some of the diplomatic wrangling involved in efforts to build railways in Egypt, see Rilov, “Railway Questions.”


148. Galloway, Proposed Improvements in the Overland Route, 18.

149. Ibid., 16. To avoid any possible confusion, it should be made clear that the “small creatures” Galloway had in mind were human, not animal. For many different reasons, and in 1850, not surprisingly, had numerous supporters among British observers. For example, Thomas Waghorn, a strong advocate of building railway lines in Egypt and other parts of the empire, wrote in the 1850s that “the powers of the steam engine will, under proper precautions, be one of the means of bringing the untamed and deplorable millions of the East to Christianity.” Thomas Waghorn, Egypt, as it is; in 1837 (London: Longman, Ellety, and Co., 1837), 27–28. On Waghorn’s advocacy of rail in Egypt, see also Idean, Tracts Concerning Mahomet Ali, Egypt, Arabia, and Syria: Addressed to the Pious Powers or to Their Representatives in the Continental Congress (London: Smith, Elder, and Co., 1840). Nearly fifty years later, Lord Cromer, the head British colonial official of Egypt after 1882, wrote in July 1882 that he thought rail potentially useful for the reconquest of the Sudan. TNA, FO 533/5 (3–4 July 1885). For other British statements about the utility and importance of rail in Egypt, see TNA, FO 141/131 (14 May 1869); TNA, FO 926/15 (24 Nov. 1875); TNA, FO 653/3, p. 79 (27 Jul. 1883).

150. Galloway, Proposed Improvements in the Overland Route, 6.

151. For examples of British discussions about the Egyptian postal service in the 1870s, see TNA, FO 143/10 (1874–78).

152. Needless to say, British interests in rail in Egypt stemmed largely from the desire to increase the speed and efficiency of moving Indian Army troops and supplies. For discussions in this regard, see the following from the 1860s and 1870s: TNA, MT 22/3 (14 Nov. 1866); TNA, MT 22/3 (1867); TNA, MT 22/3 (1869); TNA, MT 22/3 (1871).

153. Galloway, Proposed Improvements in the Overland Route, 3.

154. For added commentary on the need to improve “the comfort of those who travel across the Deserts” between Cairo and Suez, see ibid., 72.

155. For a critical discussion of rail as a principal symbol of modernity, see Marlan Agar, Tracing Modernity: India’s Railway and the Culture of Mobility (Minneapolis: University of Minnesota Press, 2011).

156. British officials in Egypt were very conscious of the need to maintain coal and other energy supplies in the country to fuel both rail and ship. Egypt’s energy regime in the 1860s and 1870s indeed became a crucial engine of the British Empire. See, for example, TNA, FO 141/70 (13 Apr. 1869); TNA, FO 141/131 (1879); TNA, MT 22/3 (1867). For more on the coal energy regime, see Timothy Mitchell, Carbon Democracy: Political Power and Social Order in the Age of Oil (London: Verso, 2011), 12–42.


158. Another example of the intersecting histories of animals and machines in the Ottoman Empire, and of particular the perceived duality of animals in the nineteenth century, was the opening of an underground rail tunnel to move passengers up and down the steep hill between Galata and Pera in Istanbul. Built by a British company, the tunnel was opened in late 1874. To prove the tunnel’s safety and efficiency, its first runs were carried out with only animals aboard. Before this rail link, animals provided the indispensable labor needed to move loads uphill between financial centers in the Ottoman capital. After its construction, however, the only productive labor they were deemed capable of carrying out was as expendable first-class passengers—crash dummies—on a new, unknown, and possibly dangerous means of conveyance. I take this information about animals as the train’s first passengers from the station plaque about the tunnel’s history.

159. Galloway, Proposed Improvements in the Overland Route, 18.

160. Tuan, Domination and Abjection, 15.

161. Ibid.

162. For the British, this preference for machine over both human and nonhuman animal labor was expressed in the late 1870s and early 1880s through the language of both economic efficiency and the purported alleviation of human suffering. Earlier in the nineteenth century, British officials hoped to utilize human labor for its efficacy and perceived superiority over animal labor. By contrast, in the last quarter of the nineteenth century the British came to see corvée as an obstacle to both financial gain and moral uprightness. They thus advocated for the abolition of the practice in favor of machines of all kinds—steam pumps, rails, dewatering devices, and telegraphs. For expression of this desire for machine labor over that of man and other animals, see the Review of the Controlers General to His Highness the Khedive, 1880” in TNA, T 1/12292 (21 Feb. 1881). For further statements of British concern about the moral and financial hazards of corvée in this period, see TNA, FO 926/14 (1879); TNA, FO 633/5, 77–78 (15 May 1887), 79–80 (23 May 1887), 81–82 (30 May 1887); TNA, FO 633/45, p. 23 (15 Sep. 1879).


164. Numerous examples of this process from around the globe are given in Richards, “Global System.”


3. In-Between

1. The literature on the history of dogs and human-dog relations is therefore vast and varied. Most useful for my thinking on these subjects have been the following: Kate, Beast in the Bowery: Susan McClellan, Dog (London: Reaktion Books, 2004); Harriet Ritvo, “Pride and
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5. Selman inspired the title of the following, which is sadly not really about him at all. David Elkind and John Eileen, Rescuing Dogs: Two Great Thinkers at War in the Age of Rediscovery (New York: Mariner Books, 2016). As regards the early modern French connection to the Ottoman Empire in the realm of things animal, it is also noteworthy that the animal combat arena constructed in the royal gardens of Vincennes in the 1650s was dubbed the 'vrai et belles benares' (the strength of wild bears), a name—according to Peter Sahli—previously chosen in order to evoke the exotic world of the Ottoman palace, Peter Sahli, ‘The Royal Menageries of Louis XIV and the Civilizing Process Revisited’, French Historical Studies 35 (2012), 240–61.

6. On Blacade, Hitler, and his other dogs, see Boris Sa, Animals in the Third Reich: Pets, Pavilions, and the Holocaust (New York: Continuum, 2000), 87–89; McGillic, Dog, 27 and 117.

7. The movie star Rin Tin Tin was apparently so popular that he garnered the most votes for the first-ever Best Actor Award from the Academy of Motion Pictures in 1929. It was thought, however, that offering the inaugural prize to a nonhuman was not a good precedent for the new award, so the prize was taken away from Rin Tin Tin and instead given to Paul Jannings, Susan Orlean, Rin Tin Tin: The Life and the Legend (New York: Simon and Schuster, 2011), 8–89.


10. In modern-day Egypt, the black dog in particular was regarded by Muslims writers as more troublesome than any other kind of dog. Encyclopedia of Religious and Nature (London: Thomson Continuum, 2003), 64. ‘Dogs in the Islamic Tradtion and Nature’ (Khaled Abu El Fadl).


12. None of the evidence for the human-dog relationship in Ottoman Egypt suggests that dogs had individual names. In ancient Egypt, by contrast, there is a record of dog names, with about eighty having been identified. Most of the names evoked the animal’s physical attributes: color, size, size, and so on. Reeves, Flushing, Animal Husbandry and Diet in Ancient Egypt, 541–50. Kostas Sapov, Daily Life in Ancient Egypt: Recreating Literature (Malden: Blackwell, 1998), 59–62. See also Angela M.J. Toodley, ‘Coordin of a Dog from Bent Hanar’, Journal of Egyptian Archaeology 74 (1988): 107–11. The presence of dog names in ancient Egypt was likely a function of the fact that canines were sometimes kept as pets, a phenomenon that, as I will discuss later, was quite rare in the Ottoman Empire (see below).


15. The scholar of Islamic law Joseph Schacht thought that the notion of dog impunity in Islam was borrowed from Judaism, Joseph Schacht, The Origins of Muhammadan Jurisprudence (Oxford: Clarendon Press, 1950), 216. Zelev Maghan disputes this idea, stating that nowhere in the Talmud are dogs cited as impure and that no evidence exists for the presence of this idea in Jewish practice between the seventh and the tenth centuries CE. Maghan believes that Schacht found notions of canine impunity in the writings of Sophistic scholars, who were themselves influenced by Islamic ideas of dog impunity. Thus, for Maghan, Schacht mistakenly took these borrowed ideas as representative of normative Jewish beliefs. According to Maghan, the evidence indeed overwhelmingly points to the exact opposite phenomenon: the influence of Islamic ideas about dogs on Sophistic Jews. Maghan, ‘Dead Tradition’, 297–313. For a philosophical take on artistic representations of Jews and animals, see Andrew Benjamin, Of Jews and Animals (Edinburgh: Edinburgh University Press, 2010).

16. Quran 7, 176.

17. For a study comparing ideas about the impunity of pigs and dogs, see Maghan, ‘Dead Tradition’, 297–313.


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23. Ibid.

24. Ibid.


27. Encyclopedia of the Qur'an (Leiden: Brill Online, 2013), s.v. "Dog" (Bruce Pidgeon); Veric, "Kab."


33. Quawan's text is the following: Hadl Allah Mustawfi Qavanli, Nuzhat al-Qulub (Tehran: Dastgha-yi Kitab, 1983/1984), 393. The relevant animal portions of this have been translated as idem., "Animal in Traditional Sufi Literatures," 1949–50.


35. Al-Jahiz's text is the following: Hadl Allah Mustawfi Qavanli, Nuzhat al-Qulub (Tehran: Dastgha-yi Kitab, 1983/1984), 393. The relevant animal portions of this have been translated as idem., "Animal in Traditional Sufi Literatures," 1949–50.

36. Al-Jahiz's text is the following: Hadl Allah Mustawfi Qavanli, Nuzhat al-Qulub (Tehran: Dastgha-yi Kitab, 1983/1984), 393. The relevant animal portions of this have been translated as idem., "Animal in Traditional Sufi Literatures," 1949–50.


38. Al-Jahiz's text is the following: Hadl Allah Mustawfi Qavanli, Nuzhat al-Qulub (Tehran: Dastgha-yi Kitab, 1983/1984), 393. The relevant animal portions of this have been translated as idem., "Animal in Traditional Sufi Literatures," 1949–50.

39. Al-Jahiz's text is the following: Hadl Allah Mustawfi Qavanli, Nuzhat al-Qulub (Tehran: Dastgha-yi Kitab, 1983/1984), 393. The relevant animal portions of this have been translated as idem., "Animal in Traditional Sufi Literatures," 1949–50.

40. Al-Jahiz's text is the following: Hadl Allah Mustawfi Qavanli, Nuzhat al-Qulub (Tehran: Dastgha-yi Kitab, 1983/1984), 393. The relevant animal portions of this have been translated as idem., "Animal in Traditional Sufi Literatures," 1949–50.


57. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.


60. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.


63. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

64. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.


68. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

69. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

70. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

71. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.


73. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

74. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

75. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

76. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

77. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

78. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.


82. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

83. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

84. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

85. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

86. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

87. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.


89. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

90. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

91. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.


95. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

96. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

97. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

98. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.


100. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.


102. ibid., *Tibāʿī al-Mahāra wa al-Maṣār*, 32v–34r.

118. Saynâyiyis is the plural Ambilish form of the Persian singular nayis (it comes to “Turkish as sâlih” with my meaning “dog” and has “re科普”). For a discussion of the etymology of various words for “dog” in Turkish, see Alemet Ceyhann, “Turk Onomatopéyasına Kopol’ Kılış,” Belleten 25 (1961): 1–11.


120. This use of dogs continues. In the 2011 American attack on Pakistan, the commander that stormed bin Laden’s compound was aided by a group of canines who advanced them to sniff out any hidden explosive and to lead the way to the targets of the raid. Gourdie, “A Bin Laden Hunter on Four Legs,” New York Times, May 4, 2011. For an account of the U.S. military’s use of dogs in Afghanistan and elsewhere, see Maria Goodavage, Soldier Dogs: The Untold Story of America’s Canine Heroes (New York: Dutton, 2012).

121. For an early nineteenth-century example of sultanregiments using various animals for different military purposes, see SSM4, E. 1173/72 (13 C 1216/19 Nov. 1800).

122. Artan, “A Rule of Rings as a Treatise on Hunting,” 350. Into the early nineteenth century, the sixty-fourth and seventy-first regiments of the Ottoman janissary corps still regularly kept large numbers of mastiffs (a.sasan), terriers (a.sager), and other dogs as part of their fighting forces. BOA, CS 6657 (13 M 1216/26 May 1801).


124. End, 88–89.

125. For a slightly different version of the story of this dog attack, see al-Damatani, Tarh Lýgı al-Mul-khâr, 160–61.


4. Evolution in the Streets


2. For an account of nearly contemporaneous attempts to remove dogs from New York City, see McNear, “Swinish Multitude.”

3. The historical literature on dogs as companionable species—pets—is enormous. Studies that have been most useful to me include Lane, Beast in the Boulevards; Pazzo Grier, Pets at America; Rivko, “Pride and Pedigree,” Yuan, “Dominance and Affection: Hawaii, When Species Meet.”

4. On dog evolution, see the studies cited in note 2 of Chapter Three.
human society and the dogs and other animals that died alongside them. Thus we see in this case the persistence of the idea that certain kinds of humans and certain kinds of animals—in this example, the provident dogs—were conceptualized as being very close to one another in a spectrum of living things. 65

23. Aspects of this story bear resemblance to "the great cat massacre" in 1720 Paris analyzed by Robert Darnton. Especially important in both these instances of violence against asleep and preventing nighttime security matches. Robert Darnton, The Great Cat Massacre and Other Episodes in French Cultural History (New York: Basic Books, 1995), 75–104. For the night in Early Modern Europe (Cambridge: Cambridge University Press, 2002), 302 and this occasion, see also Wolfgang Schivelbusch, Disenchanted Night: The Industrialization of Light In the Nineteenth Century, trans. Angela Davis (Berkeley: University of California Press, 1988).

24. For a history of the phenomenon of urban dog killings in Europe, see McHugh, Dog, 120–40. For an earlier example of the overcrowding of Cairo's streets with horses and other animals, see Rubin, Khalid Rab' al-Milad wa al-Milad, 15–21. For a later example, see Letter from Arthur Rodgers to His Father, March 10, 1881, Arthur Rodgers Correspondence (1845–1902), RANCS MSS 2004/2424 ca, The Bancroft Library, University of California, Berkeley.


26. For an example, see, Selma, Egypt in the Reign of Muhammad Ali, 162–95.


28. ibid., 58; and ibid., 59.


30. On the emergence of this separation between species, see the following. The very important work of Keith Thomas, Man and the Natural World: Changing Attitudes in England, 1500–1800 (London: Allen Lane, 1983).

31. On Seattle, see Sanders, "Animal Troubles and Urban Anxiety" On Istanbul, see Pingeot, "Istanbul's Street Dogs." For a purely Freudian analysis of the "rendition of dog shit as litter," see McHugh, Dog, 179–92.


35. For another example of clearing land for expanding urban construction projects, see al-Jabarti, 'Aṣīr ibn al-Azhār (1944), 4:42–44.


37. Consider, for example, what James Apgar and St. John had to say about Cairo in December 1832 after being away from the city for a period. "I have not been many days in Cairo, and yet I discover that many changes have taken place in its appearance even since the descriptions of the very latest travelers were written. The streets, formerly disgracefully dirty, are now remarkable in general for their cleanliness, being all swept three times a day." Ibid., 1:140.


40. Abu-Lughod, Cairo, 92.

41. For a useful comparative study of these issues, see the following examination of dogs to

42. As garbage was increasingly moved outside of Cairo's walls, new extramural mounds developed and many dogs came to live near them. Decades later, Cairo would grow beyond its walls and take over these spaces as well, pushing garbage and the city's dwindling dog population even further away from the old city center. Following from Virginia DeJohn Anderson's
work on cattle in colonial America, Aaron Stahlscheidt suggests that canines may have been thought of as "army guard" to expansion and as "agents of empire," Stahlscheidt, Empire... of Dogs, 15. Indeed, in the case of Cairo's rapid nineteenth-century growth, the city certainly expanded beyond its ancient walled center first by canines. Dogs were pushed outside the city's walls, only to be pushed even further as the city followed them and eventually took over that land as well.

65. Abu-Lughod, Cairo, 85.


67. Other putative biological sources of disease, fish, and parasitism were waterfowl, slaughtering houses, fishmongers, and cemeteries, as well as human urbanization and defecation. Later in the late nineteenth century, the chief minister of public works, set about to remove all dangerous zones. See Falsany, "An Olfactory Tale," Mitchell, Censoring Egypt, 63-94.


69. The medicalization of urban canine populations in the Ottoman Empire would continue to develop over the course of the nineteenth century and would eventually result in the establishment of more veterinary hospitals, the first of which was the Institute for Dog Medical Treatment (Darflir Kolb Teshkilatina) in Istanbul, a facility that fell under the administration of the remainders of the empire.

70. On the history of this canine institute, see BOA, Darflir Ileri Ide, 1891 (3 S 1320/10 Oct, 1910). Similar dog veterinary facilities would be established elsewhere in the empire, for example, see the following on the founding of a Canine Medical Treatment Center (Xepik Hastaliklari Teshkilatina) in the eastern Anatolian city of Birecik in 1916: BOA, Darflir Nezaret Kamil-i Mahalle Mihiaki, 14 Ca 1334/19 Mar, 1915. Moreover, like humans and other animal populations, dogs would increasingly come to be seen as an object of medical and public health concern. For example, in 1993, dogs coming to Egypt from Paris were kept in quarantine for ten days due to fears of the spread of a unknown disease that was killing European dogs at the time. BOA, Hariky Nezaret Istanbul, 82/42 (1 Sept, 1923).

71. Other than the fall of 1820, Cairo's housing shortage was described as "critical" by al-Jabarti, "A'it al-Ahmar" (1994), 4: 444.

72. Lane, Manners and Customs, 284-85.

73. Indeed, at the linguistic and rhetorical levels as well, dogs seem to have been recoded in the early nineteenth century as particularly vicious, dangerous, and savage. For example, the Arabic term for "dog" is "al-kharrar," which means "the one that shakes," and is often used in a derogatory sense, especially by the lower classes.

74. Lane, Manners and Customs, 284-85.

75. In truth, the situation is more complex. Lane offers the following critical side comment about this: "For an Egyptian woman to keep a secret, and such a secret, was impossible." Ibid, 237.

76. On the commemorative practice of dogs in Egypt, see Lane, Manners and Customs, 284.

77. For a short history of dog cemeteries in Europe and the United States, see Badea, Amazing Dogs, 5–65.
On this point, Thorsten Veblen writes in his classic 1899 study of bourgeois sensibilities that "the dog is the libidinal of the domestic animals in his person and the nastiest in his habits. For this he makes up in a serrile, forwarding way towards his master, and a readiness to inflict damage and discomfort on all else. The dog, then, commences himself to our favor and commonly serves no industrial purpose [in the capitalism of the nineteenth century], he holds a well-assured position in much regard as a thing of good repute. The dog is at the same time associated in our imagination with the class—a servileous employment and an expression of the horrible predatory impulse"—Thorsten Veblen, The Theory of the Leisure Class (Boston: Houghton Mifflin, 1973), 133.

On all human interests in dog breeding and efforts to create canine breeds to fulfill certain human needs and desires, see McHugh, Dog, 98-126; Margaret E. Derry, Breed for Perfection: Showmen, Cattle, and American Horsecrafter since 1800 (Baltimore: Johns Hopkins University Press, 2003), 68-102.

On dog domestication, see Horowit, Inside of a Dog, 39-41; Russell, Evolutionary History, 63-69; Coppenrath and Coppenrath, Dogs Vill et al., Multiple and Ancient Origins of the Domestic Dog, 246-161; Derry, How the Dog Became the Dog.

On these points, in addition to the work cited in the previous note, see also McHugh, Dog, 19-25.

This point is made convincingly in Vill et al., Multiple and Ancient Origins of the Domestic Dog.


For a general discussion of canine genetics and its implications for both dogs and humans, see McHugh, Dog, 76-91.

Russell, Evolutionary History, 18.


Croze, "Geology of Mankind," 23.

Ibid.

Oman, Robbok, Strachan, and Thordarson, High Latitude Extinctions.

One could, of course, make a similar point about other parts of the globe that witnessed massive social and political upheaval at the end of the eighteenth century. Events like the French, Haitian, and American Revolutions; the Russo-Ottoman War; the first European settlement of Australia; the emergence of the Qajar Dynasty in Iran; the start of a fifty-year civil war in Tonga; and much else were all likely influenced—at least in part—by geophysical, climatic, and energetic changes associated with the beginnings of the Anthropocene.

In Edmund Russell's words, "We have accidentally shaped the evolution of populations by altering environments." Russell, Evolutionary History, 43.


104. In William Stead's words, "We have accidentally shaped the evolution of populations by altering environments." Russell, Evolutionary History, 43.