A Radical Journal of Geography
ANTIPODE

Settler Colonial Beasts: Feral Pigs and Frontier Assemblages in Texas

Jason Cons

Department of Anthropology, University of Texas at Austin, Austin, TX, USA, jasoncons@utexas.edu

Michael Eilenberg

Department of Anthropology, Aarhus University, Aarhus, Denmark, etnome@cas.au.dk

Abstract: This essay explores the role of feral pigs in assembling the Texas frontier. Quick to reproduce, highly adaptive, and destroyers of agricultural fields, feral pigs have emerged over the past decade as one of the principal challenges facing agriculture and land management systems in Texas. Yet, more than simply a pest, feral pigs have and continue to be active agents in forging new landscapes, ecologies, and settler-colonial relations. We trace the history of the present pig "crisis" by exploring three paradigms for thinking pigs and the politics of ferality on the Texas frontier. These paradigms frame pigs as: "settler beasts" (companion species to settler expansion); "melting-pot beasts" (feral pigs as representing diverse genetic remnants of settler expansion); and "invader beasts" (feral pigs framed as a threat). Our argument is that these paradigms index diverse material and discursive ways that feral pigs have and continue to assemble Texas's frontier landscape.

Resumen: Este ensayo explora el papel de los cerdos salvajes en el ensamblaje de la frontera Texana. Debido a su rápida reproducción, alta adaptabilidad y la destrucción de cutivos agrícolas, los cerdos salvajes han emergido desde la década pasada como uno de los principales desafíos a los que se enfrenta el manejo de sistemas agrícolas y de tierras en Texas. Aun así, más que una simple plaga, los cerdos salvajes fueron y continuan siendo agentes activos en el modelado de nuevos paisajes, ecologías y relaciones coloniales. En este texto delineamos la historia de la actual "crisis" de cerdos explorando tres paradigmas para reflexionar acerca de los cerdos y las políticas de lo feral en la frontera de Texas. Estos paradigmas enmarcan los cerdos como: "bestias colonizadoras" (como especies que acompañan la expansión colonial), "bestias crisol" (los cerdos salvajes como representación de remanentes de la diversidad genética en la expansión colonial), y "bestias invasoras" (los cerdos salvajes entendidos como amenaza). Nuestro argumento es que estos paradigmas enlistan las diversas formas tanto materiales como discursivas en que los cerdos salvajes han y continuan ensamblando el paisaje fronterizo Texano.

Keywords: feral pigs, ferality, frontiers, settler colonialism, Texas

Introduction

In central Texas, the increasing threat to agriculture by feral pigs leads to the creation of hog control task forces and prompts several counties to initiate a bounty for each pig killed. Pig populations begin to compete with other wild species for

dominance in Texas ranch lands, leading ranchers to speculate that pigs cause secondary adaptations in species such as rattle snakes who are their potential prey. As researchers rush to develop smart traps and sterilisation programmes to stem the surging pig population, commercial hunting operations with names like "Pork Choppers Aviation" offer high-flying customers the chance to participate in eradication programmes—viscerally—by hunting feral pigs from helicopters with machine guns. Herds of pigs increasingly penetrate suburban and urban space, occupying parkland, ravaging pristine lawns, and occasionally chasing early-morning bicyclists and runners. A woman is attacked and killed by a herd of pigs, fuelling narratives of a dystopian pig invasion that eerily mirrors imaginations of a state overwhelmed by migrants from the South. All of these are moments on Texas's feral frontier.

In this paper, we examine this frontier. We ask: how do the biological remnants of older frontiers live on in the present? And how are they entangled in the production of new frontier relations? To answer these questions, we trace the history and present of feral pigs in Texas. Quick to reproduce, highly adaptive, and able to destroy whole agricultural fields in a single night, feral pigs have emerged over the past decade as one of the principal problems facing agriculture and land management in Texas.[1] Yet, pigs are more than simply a nuisance. They have and continue to be active agents in forging new landscapes, ecologies, and settler-colonial relations. Feral pigs, then, are useful in exploring the recursive formations of more-than-human frontiers.

To posit Texas as a recursive frontier space—as we do here—is not to freeze landscape or politics in a particular moment in time or to endorse a nativist reading of Texas history. Rather, it is to draw attention to the ways that the space known today as Texas has long been imagined as a frontier zone. By "recursive", we mean the continued reinvention of frontiers in particular places. Building on Middleton (2019), we understand such reinventions as, at least partially, constituted through continuous material and discursive borrowings from older frontier formulations. The dynamics of Texas's "frontierness" have fluctuated over time. However, the gendered and racialised imagination of Texas *as a frontier*—where particular kinds of violence are legitimised to make, preserve, and defend capitalist expansion and frontier (homestead) domesticity—continues to be decisive in everyday life and politics within the state today. Indeed, this frontier imagination has been central to the recursive refashioning of Texas as a perpetual frontier zone. If the United States is—as many have convincingly argued—a settler-colonial state (see, e.g., Inwood and Bonds 2016), the continued assembly and reassembly of its frontiers remains crucial to explore today.

In thinking of Texas as a recursively constituted frontier, we build on previous work where we posited "frontier assemblage" as an analytic allowing us to (momentary) decentre capital as *the* causal relationship in the production of resource frontiers (Cons and Eilenberg 2019).[2] Here, we build on that work, arguing that to understand frontiers—their spatio-temporal dimensions, the diverse imaginaries that shape their production, the particular forms of extraction that unfold within them—it is necessary to broaden our optics to think through the

more-than-human, more-than-economic, and more-than-material dynamics of frontierisation. Thus, while classical articulations of resources frontiers might see the formation of animal resource frontiers, primarily, as the appropriation of value through the exploitation of cheap nature (e.g. Moore 2015; Weis 2021) we argue that the animals themselves need to be centred as active agents in frontier production and in making settler-colonial relations.

Feral pigs present a suggestive case for such an argument. Over the past decade, the feral pig problem in Texas (and surrounding states), has escalated dramatically. Texas has become one of the key sites of projects seeking to arrest the spread of feral pigs across the American Southwest, Midwest, and West. Yet such efforts are challenged by the adaptability, range, and fecundity of pigs. The current feral pig population in Texas may be as high as four million and growing. Moreover, some estimate that to control and limit the further expansion of this population, it would be necessary to eliminate 70% of this population *per year* (Griffiths 2021). Feral pigs pose profound threats to local agriculture and are potential vectors of infectious diseases. Moreover, they have other significant ecological impacts—competing with and, perhaps, reshaping the behaviours of other species in the Texan landscape.

Yet, beyond their immediate impact on ecologies, pigs offer suggestive ways to read Texas's past and present. Feral pigs were and continue to be part and parcel of the project of settler colonialism in Texas—that is to say, the seizure of land from Indigenous populations by successive waves of immigrant populations, the settling and transformation of that land for agrarian and extractive use, and the production of a racialised politics that legitimates such expropriation and cements racialised hierarchies.[3] A species brought to Texas by successive waves of settler populations, pigs have been central to the dynamics of dispossession that have historically constituted the Texas frontier. And the imagination of the struggle with a rapidly expanding pig population as a "war" against invader-others has enabled a profoundly militarised project of eradication—a project that has troubling articulations with discussions of managing other migrant bodies and movements.

The term "feral pig", or "feral hog", is used in Texas, and throughout much of the continental US, to refer to pigs living and foraging outside of human captivity and domestication. To call a pig "feral"—as opposed to "wild"—marks it as an animal that has escaped human captivity (rejecting domestication) or has been set free. Yet, as many authors working in multi-species research have pointed out, to call an animal feral also marks it in particular and normative ways—as invasive; as out-of-place; and, often, as *a priori* killable life (for discussion, see Rutherford 2018; van Dooren 2011). Feral, as such, is a loaded term. We deploy it here as an emic concept—one used by ranchers, politicians, hunters, and others to describe an emerging problem (often framed as a "crisis") of sounders (herds of feral pigs) that roam within and shape agrarian and urban landscapes in Texas and beyond.

The term "feral" invokes a particular kind of biopolitical and territorial metaphysics. As Hyaesin Yoon (2017:136) astutely observes:

> Defined as "in a wild state, especially after captivity or domestication", the term "feral" unsettles the categorical divisions of culture/nature, domestic/wild, and belonging/exclusion. As such, the term evokes liminal, excessive, inappropriate, and transgressively abject connotations, marking the need to correct, neuter, or even exterminate ecological and political outcasts.

In other words, to call pigs "feral" conjures a set of racialised and colonial imaginaries that articulate across species and licenses normative and often lethal strategies of pig management. Moreover, the term suggestively overwrites the histories of pigs in framing the politics of land in successive waves of frontier-making in Texas.

In what follows, we sketch a way of resituating pigs and feral biopolitics in contemporary discussions of the Texas feral pig "crisis". We do this by exploring three paradigmatic ways of thinking about pigs. First, as "settler beasts", pigs have long been a companion species to settler expansion in Texas. Both an accompaniment to and an active agent in making the Texan frontier, pigs have and continue to structure the politics of land and dispossession. Second, as "melting-pot beasts", feral pigs in Texas represent diverse genetic remnants of settler expansion. Not only do feral pigs bear the markings of histories of domestic and wild interbreeding, but they also embody a range of adaptive traits. These traits make them adept at re-frontierising space and reclaiming settled land. Third, as "invader beasts", feral pigs are framed as a threat not just to Texas agriculture, but to settler life at large. Feral pigs embody rhetorics of race, frontier masculinity, guns, and homestead defence. This has spurred the reimagination of feral pigs as huntable without limits—as veritable *sus sacer* who can be killed but not sacrificed. These paradigms index diverse material and discursive ways that pigs have and continue to assemble Texas's frontier landscape. In conclusion, we revisit discussions of ferality and the Anthropocene that have been central to many multispecies conversations. Thinking the feral pig as a cornerstone of frontiers and settler-colonial relations, we suggest that feral pigs offer a way to resituate the Anthropocene as a political concept indexed to colonial expansion and its attendant human and environmental impacts. As such, we seek to demonstrate how feral pigs in Texas are good to think with, and why.

The Settler Beast

Pigs have long been a companion species to settler expansion in Texas. As both an accompaniment to and an active agent in the making of the Texas frontier, pigs have and continue to structure the politics of land and dispossession. Over their long history in Texas, during which they circulated between domestication, free-ranging management, hunting stock, industrialisation, and ferality, pigs have shaped the landscape of colonisation on the Texas frontier.

The history of pigs in Texas is an intricate story of conquest, expansion, escape, and adaptation. In order to understand the complexity of the settler beast we need to briefly survey 500 years of colonial history. As non-native species to the Americas, pigs were first brought from Europe by early explorers and settlers in

the 1500s as a food source. In a very material way—caloric—they fuelled colonial conquest. The Spanish Crown insisted that their expeditionary ships carry domestic pigs as a basic component of successful colonisation. Historian Virginia DeJohn Anderson (2004) labelled pigs "agents of empire" and J.L. Anderson (2019:10) has argued that "Hogs, in particular, were especially useful in expanding the limits of empire … The exercise of power over people, pigs, and geography was one of the most significant developments in American history, with the fate of empires and nations in balance" (see also Essig 2015).

It was common for the early colonial explorers to leave behind pigs on newly discovered land, to provide fresh and familiar meat for later waves of settlers and military campaigns (Clampitt 2018:41). Christopher Columbus brought the first Iberian domestic pigs to the Caribbean island of Hispaniola in 1493, and later in 1539 the Spanish conquistador Hernando de Soto brought 13 pregnant sows from Cuba to what we today know as Tampa Bay, Florida, where de Soto later became governor (Mayer and Brisbin 1991). De Soto capitalised on the fecundity of pigs and introduced pork sausage and ham as a staple protein in "La Florida". He traded pigs and pork with Native Americans during his numerous expeditions westwards through what is now 14 states (Gradie 1984; Mayer and Brisbin 1991; Zadik 2005). As Benjamin Joseph Zadik (2005:49) notes, "In a crude way, swine served as the "gateway" animal. Unlike other livestock, they could survive the arduous campaigns, and once a township was established, other animals like cattle and sheep could be brought in larger numbers".[4]

Of all the domesticated animals brought along by the conquistadors, pigs adapted most quickly to the New World environment. By de Soto's death in Arkansas in 1542, the 13 pigs had expanded to a herd of 700 head (not counting all those consumed and traded). Chronicles from de Soto's expedition suggest that Native Americans quickly developed a taste for pork and regularly captured pigs and raised them. Many of these pigs were allowed to roam free and were periodically hunted (Gibson 2021; Gradie 1984).[5] De Soto's successor Luis de Moscoso Alvarado mounted several inland expeditions extending into Texas and beyond, bringing along herds of several hundred pigs to feed his troops. Those that were not consumed or captured by Native Americans frequently escaped and ran wild. It didn't take long before a pig population had established itself in the plains and woodlands of Texas. For example, in 1598 Sergeant-Major Vicente de Zaldivar, reported that he attempted to buy pig lard from local Indigenous populations in Texas that was extracted from the pig populations in the region (Towne and Wentworth 1950).[6] Zadik (2005:53) notes that "Franciscan friars encouraged the practice of raising pigs whenever they established missions. This is especially true in California and Texas".[7] Pigs were not only brought inland from coastal Florida; pigs also crossed into Texas and other parts of North America from Mexico. J.L. Anderson (2019:7–8) observes that several Spanish expeditions brought pigs across the Rio Grande from Mexico into the province of Texas in the late 1600s.

Pigs were ideal settler-colonial travel companions. As a mobile food supply, they were hardy and prolific animals that bred at speed, consumed almost anything, could roam on their own, and gained weight quickly. The raising of pigs was

significantly facilitated by the availability of New World grains—corn/maize. Pigs were a vital source of energy and protein for the Spanish colonists and later settlers as a ready source of fat and easily preserved meat (smoked, salted, and dried). Following the Spanish, English and French explorers and colonists brought domestic pigs to other parts of North America.

In the centuries following early European exploration and colonisation of North America several waves of European migrants (English, Dutch, German, and Swedish) settled or travelled through Texas in pursuit of "free" land. Like Columbus and the Spanish conquistadors, they also brought along pigs from Europe that later interbred with the remnants of de Soto's pigs. These colonist settlers, with little labour to manage the immense amount of land they claimed, did not have the resources to supervise livestock like domestic pigs. To save labour and expenses for animal feed, pigs were often let loose to roam the countryside to fend for themselves. In other words, not only did pigs provide an ideal mobile food source for settler populations, the very conditions of settler survival relied on their capacity to thrive outside of domestication—pigs could be let loose to forage off of others' lands and held in reserve as a readily available source of food. Such pigs were often left to run semi-wild, creating an environment in which newly arrived breeds could mix with feral populations from older waves of colonial expansion. As Robert Gradie (1984:153–154) notes, "Lacking natural predators except man and wolves, there was little impediment to the pigs' colonization".

Open or free-range husbandry was the most common practice among subsistence settlers or stockmen (persons who look after livestock) in the American Southeast. Agricultural cultivation was limited to open patches and cows and pigs foraged on the unfenced plains and forests. Land was privately owned but there were usufruct rights (for settler populations) to graze, hunt, fish, etc. Shared (settler) commons were governed by norms including sharing meat and maintaining pigs which had notched ears to mark ownership. Such tolerant policy towards pig raising was not without problems as "free domestic pigs" often dined on the wheat, corn, and oat fields of the homesteaders. Pig damage to agriculture was thus a general problem. The ear-tagged semi-feral pigs also strained relations between settlers and Native Americans (Anderson 1994; Gradie 1984). Pigs did not differentiate between Indigenous and settler cornfields. Yet, as private property, ear-tagged hogs were not to be hunted and killed by Native Americans (Anderson 2004; Clampitt 2018). As such, on the Texas frontier, at the very moment when forces such as the Texas Rangers were carrying out campaigns of ethnic cleansing against Indigenous and Tejano populations (Anderson 2005; Martinez 2018), pigs were waging their own, less overt, war of expropriation.

Such issues were not unique to the Texas frontier. Free-roaming pigs instigated conflicts throughout North America. For example, by the mid-1600s Native Americans in New England faced stark competition over resources not only from European immigrant settlers but also from pigs that often damaged native food sources like clam beds, nuts, and berries. These "livestock allies" of the settlers were in direct competition over food with Native Americans, leading to hunger and deprivation. While settler-colonial authorities were aware of the issue of

resource competition, Native Americans were directed to not kill the "Englishman's pig" despite their trespassing into native fields (Anderson 2019:12–16). The pig conflict thus became yet another justification to maintain hierarchies of access between settler and Indigenous populations.

During moments of violent conflict such as the Mexican–American War of 1846–48 or economic downturns, many settlers on the Texas frontier abandoned their homesteads and pigs were left to fend for themselves. Their populations expanded and they became a threat for both landholders and travellers alike. For example, in his travel accounts across the Texas plains in the mid-1880s, American landscape architect Frederick Law Olmsted encountered the ferocity of free-roaming pigs while encamped in Houston County. "At this camp we were annoyed by hogs beyond all description. At almost every camp we were surrounded by them; but here they seemed perfectly frantic and delirious with hunger. These animals proved, indeed, throughout Texas, a disgusting annoyance" (Mayer and Brisbin 1991:43).

Keeping pigs on woodlands in Texas continued as an important survival practice into the 1920s (Mayer and Brisbin 1991). For many poor settlers and small homesteaders in the Southeast, "hogs and hominy" became dietary staples. Free-roaming pigs became an insurance against lean times and saved many impoverished families during the Great Depression (Weeks and Packard 2009:283).[8] During these times, pigs came to be known as "mortgage lifters" as they presented an abundant and reliable economic value (Clampitt 2018:80). Until the 1940s, domestic pigs were allowed to free forage in Texas (Gaskamp et al. 2020:348). The strategy of letting pigs loose in the woodlands continued well into the mid-1900s until the passage of the so-called "fence" or "closed-range livestock laws" when most open range land was enclosed in the early 20th century (see Figure 1).[9] Escaped "free-ranging domestic pigs" were considered a serious economic problem during this period as they preyed on range calves and goats (Mayer and Brisbin 1991:43–44).

The genetic stock of pigs was further complicated by the introduction of Eurasian wild boars in parts of the United States for hunting purposes in the 1900s. In the 1930s, 11 Eurasian or Russian wild boar from the San Antonio Zoo were stocked by the Denman family at the St. Charles Ranch along the Texas coast. Later, in the early 1940s, several hundred wild boars were introduced on game farms in other Texas counties (Mayer and Brisbin 1991:63–65).[10] Like their cousins already roaming the countryside, it didn't take long before the first wild boars escaped their enclosures and interbred with feral pig populations. Because of the increasing demand for wild boars, ranchers continued to breed and sell boars to hunting leases across the state and boars continued to escape their enclosures and intermingle with existing feral populations.

As such, pigs have been at once the handmaidens and outcomes of settler colonialism in Texas. This is a crucial point in thinking the history of ferality on the Texas frontier. The transportation of pigs as a reserve domestic population coupled with the ability of pigs to survive as free-ranging populations was itself a mechanism of colonial expansion and settlement. The intermixing of multiple pig species in the wild at once produced a feral population that was a pest, an agent

Figure 1: "Farmer and horse with hogs", postcard, 1909 (source: the Fort Bend Museum Collection at The Portal to Texas History, University of North Texas Libraries; https://texashistory.unt.edu/ark:/67531/metapth165/m1/1/?q=%20date%3A1830-1920 [last accessed 26 April 2023])

of dispossession, and a safety valve for settler populations in hard times. Pigs are thus aptly described as "settler beasts". Yet, their genetic diversity, their adaptive capacity, and their success as a species are suggestive of other ways that they have and continue to assemble the frontier. As such, we turn to our second paradigm—feral pigs as "melting-pot beasts".

The Melting-Pot Beast

Nigel Clark (2003:164–165), in an incisive exploration of the feral politics of the colonial periphery, notes that "every invasive organism is a potentially self-replicating package of genes—a bundle of code as well as a body on the move. Like a segment of genetic code snipped from one living thing and spliced into another, a population of organisms uplifted from one environment and dropped into a different one, ten thousand miles away, *is* a genetic experiment: a field trial that takes entire countries and continents as its testing ground". As Clark notes, such experiments are processes of making territory, or more specifically, of reterritorialisation—restructuring space and its attendant power relations anew.[11] What kinds of biological reterritorialisations are heralded by the feral pig and how might we read its success and impact on Texas ecology? In this section, we understand pigs in Texas as the outcomes not only of settler relations, but also, building on Clark, of a long genetic experiment. Feral pigs in the American South cannot be understood outside of settler-colonial history—a history of territorialisation *par*

excellence. Yet they also stand as an ironic testament to one of the United States' most durable myths. As Roxanne Dunbar-Ortiz (2021) has persuasively pointed out, the myth of America as a melting-pot nation and nation of immigrants—a myth that papers over the forced importation of labour, the presence of Indigenous populations in the Americas, the violence of settler colonialism, and the continued racial divisions that characterise US society, politics, and economy—is one of the foundational narratives of white supremacy. Yet, if the notion of a "melting pot" belies the realities of American culture and society, it might be more aptly applied to feral pigs themselves—a species whose adaptive success, rapid spread, and genetic diversity are direct outcomes of waves of colonisation and introgression—the transfer of genetic information across breeds of *sus scrofa* through hybridisation.

It is this mix of early 15th–16th century colonial pigs, domestic settler pigs brought by later waves of 17th–18th century European settlers, and Eurasian wild boars introduced as trophy-hunting stock in the 19th–20th century that make up the foundation of today's modern feral pig population in Texas and elsewhere in North America. As Griffiths (2021:15) notes, "by the mid-20th century, the United States had a population of feral hogs in the Deep South and California that was as much a genetic mishmash as the human inhabitants of the land they'd invaded".

Feral hog populations have since the mid-1980s increased substantially and can now be found in at least 45 states (see Figure 2). The population of feral pigs in the Lone Star State alone is today reported to make up more than half of the total feral pig population in North America and can be found in all corners of the state from brush and desert country in south and west Texas to the crop and forestlands of east and central Texas. These feral pigs—in part due to their genetic diversity—embody a range of tremendously adaptive traits. These traits make them particularly adept at re-frontierising space and reclaiming settled land.

Arguably, the responsibility for the explosion of feral pigs is due to their popularity amongst recreational hunters. Throughout the post-war period, feral pigs have emerged as big game animals. As Abraham H. Gibson (2021:69) notes, "while most biologists want feral pigs to die, … most hunters want them alive so they can kill them". Some commercial hunting operations have intentionally released domestic pigs into wooded areas to create hunting stock. In other areas, pigs have escaped from high-fence hunting areas to join the feral population. While there are few definitive explanations in the literature as to why feral pig populations have grown so rapidly in preceding decades, a probable explanation is the coupling of importation for commercial hunting and the expansion of industrial pig farms in the Panhandle region of Texas and Oklahoma in the mid-1990s.[12] Yet, beyond this, the phenomenon of feral pig expansion and adaptability continue to astonish wildlife biologists and agricultural agencies as an example of an unwavering evolutionary adaptation.

The multi-coloured feral pigs in Texas exhibit a broad spectrum of morphological, genetic, and physiological diversity. Though all part of the same species—*sus scrofa*—their successful adaptation is the result of mixed genetics. This diversity stems from widely varying taxonomic or ancestral origins. Domestic pigs

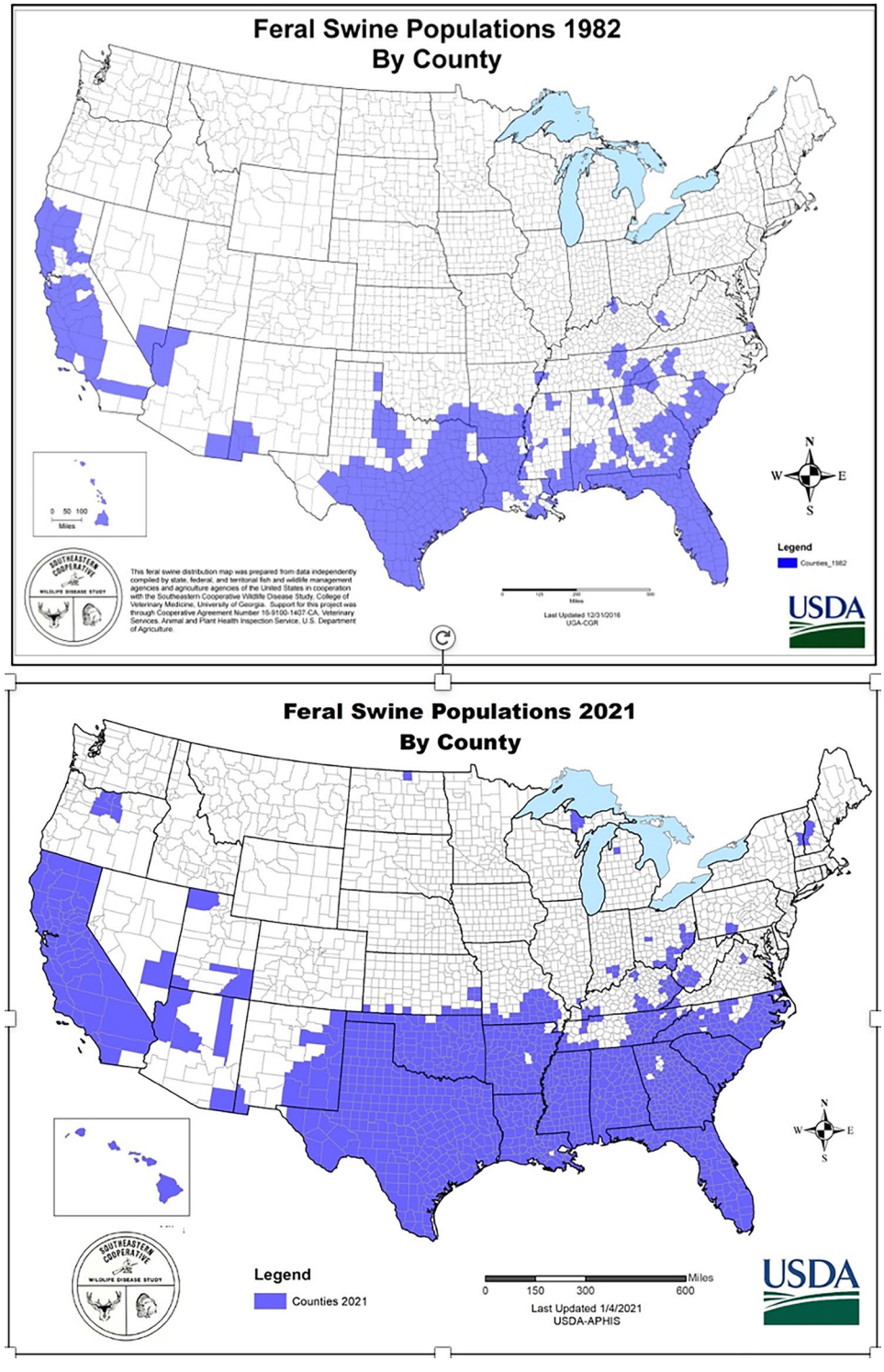

Figure 2: Feral pig distribution in the United States (source: Animal and Plant Health Inspection Service, US Department of Agriculture)

introduced into North America over the centuries have morphologically varied from archaic domestic stock, to derived colonial forms, and most recently to highly modified, selectively modern domestic breeds.[13]

Feral pigs have developed much larger resistance to parasites and lack of food than pigs from international highly productive breeds (Burgos-Paz et al. 2013). They also grow large compared to Eurasian wild boars. They range from 75 to 250 lb, but the Department of Agriculture notes that they can be twice that size and reach up to three feet in height.[14] Feral pigs lose their domestic characteristics within a few generations and revert to wild appearance similar to that of the Eurasian wild boar. Their physical attributes, like thick hair, increase their ability to survive in the wild. They reproduce at a rate faster than any other "wild" mammal of comparable size and produce large litters—traits they get from domestic pigs, which can have litters upwards of 10 piglets. In parts of Texas, once they reach between six and eight months of age, feral sows can have litters up to three times a year. As opportunistic omnivores, they can eat almost anything, live almost anywhere, and have an excellent sense of smell. Hunters report that they are extremely intelligent, often figuring out how to avoid traps and snares after a herd encounters them only a single time. Feral pigs are, thus, a robust population, spreading at a rapid rate. Indeed, some biologists predict that within 30–50 years, feral pig populations will be regular features of every county throughout the continental United States (Snow et al. 2017).

The success of feral pigs makes them an interesting animal to think with in the context of debates over hybridity, adaptivity, and ecological change. As melting-pot beasts that have and continue to develop in dialogue not just with human transformations in the environment, but with specific waves of colonisation, they are certainly part of an emergent bestiary of the Anthropocene (Nova et al. 2021). Not only are feral pigs the outcome of colonial relations, but those relations have also produced a genetic experiment that has equipped them with adaptive traits that allow them to profoundly reshape Texas ecology. Feral pigs terraform agricultural fields, increasingly appear in urban spaces, and pose occasionally lethal threats to human populations. Texas Parks and Wildlife estimates that each pig costs approximately $300 per year in control and damage to local agriculture. Beyond agricultural fields, which herds of pigs often root up in a night, pig rooting behaviour can cause erosion and create pathways for other invasive forms of plant life.[15] Pig faecal matter shifts oxygen and pH balances in soil and water systems impacting soil and aquatic biodiversity. There have been reports suggesting that feral pigs are in direct competition with other indigenous species for food and resources in Texas today—perhaps most notably whitetail deer.[16] Moreover, some ranchers in central Texas argue that feral hogs have caused ripple-effect adaptations across species boundaries, causing rattlesnakes—an occasional prey of omnivorous feral pigs—to stop rattling as an adaptive response to the increase in feral pigs in their territory.[17] Feral pigs thus have a profoundly transformative impact on the Texas settler landscape. J.L. Anderson (2019:34) notes that "hogs served as allies in European conquest and, more recently, enemies on the rapidly expanding feral frontier". Yet, to understand the

constitution of pigs as enemies and their role in the recursive constitution of this frontier requires looking beyond their status as terraforming pests.

The Invader Beast

"So what is a feral hog?", asks Austin chef Jesse Griffiths (2021:16). "Simply put, it is a pig without an address". This suggestive description of ferality is revealing of our third paradigm, the invader beast. Griffiths' quote calls to mind both Mary Douglas' (1966) foundational analysis of purity, category confusion, and danger and Liisa Malkki's (1992) critique of arborescent culture which roots people—and perhaps beasts—in place and imagines those who have become "uprooted" as categorical problems and immanent threats.[18] If the wild boar is in its proper place—the wild—and the domestic pig is reachable at home, then the feral pig is a pig-out-of-place—a categorical threat on the fringe of ordered society. Despite the fact that the conditions of their ferality emerge from Texas's colonial history and settler-colonial practices, they are beasts seen to have "gone wild" (as opposed to being wild)—leading to rampant and uncontrolled destruction.[19] They pose threats to agriculture, ecology, and domestic landscapes like golf courses, residential lawns, and gardens. Yet, they also have uncomfortable metonymic relations across species lines that reinforce their links to expropriation and the violent conquest and possession of colonial space. That is to say, they pose definitional category problems that make them intelligible within nationalist and racialised discourse about who and what belongs, who and what doesn't, and what kinds of responses are warranted to stem threats.[20]

A range of organisations support farmers, ranchers, and recreational hunters who hunt feral pigs on private land as a pest management strategy. For example, Texas A&M's AgriLife Extension Service has provided grants to several counties in central Texas to implement a tail-bounty programme. There is no limit to the number of feral pigs one can hunt in Texas. A hunting licence is not necessary to hunt feral pigs (unlike other species), and they can be hunted on any land that a hunter has permission to hunt on. Further, organisations such as the Central Texas Feral Hog Task Force have been formed with the objectives of "reducing damage resulting from feral hog activity as part of regional management efforts".[21] Beyond tail-bounties, such organisations provide support for ranchers and farmers to set up wire-trap systems to capture sounders (and subsequently kill them).

This lethal management of pest species is both logical and unsurprising. Feral pigs pose an unambiguous threat to agriculture, land, and ecology in Texas. What we offer below is not in any way a critique or a criticism of formal legislative and extension policies of managing feral pig expansion. However, the rhetoric of feral pigs as outlaws extends beyond agrarian management and often spills into popular culture as criminal threat. If, as we suggested in the previous section, feral pigs have emerged as an ecological force capable of shaping the terrain of emergent frontiers, then the discourse of their ferality itself should be understood as yet another dynamic of this frontier assemblage. To call a pig feral, as opposed to "wild" or "domesticated", is to mark it biopolitically, as an outcast beast—a threat in need of, perhaps, extermination (Yoon 2017). Much popular discourse around

feral pigs frames them not simply as passive pests, but as criminal creatures—engaged in acts of theft, violence, and vandalism. Indeed, the imagination and treatment of feral pigs in Texas belies the passive construction of the term "invasive species", a category that political ecologists have long explored as intrinsic to xenophobic imaginations of nature (see, for example, Davies 2021; Peretti 1998; Rutherford 2018; Shinozuka 2022).[22] Popular labels like "super pigs", "the feral swine bomb", "hogzillas", and "hog wars" picture feral pigs as animals adapted to extreme environments and on which war must be waged. In Texas today, feral pigs are regularly framed as invaders, threats imagined through the classic language of frontier justice—for example, reproduced as criminals on wanted posters (see Figure 3), to be brought in dead (not alive).

Figure 3: "Unwanted"

Beyond their propensity to damage agricultural land, feral pigs are thus imagined to be agents posing potentially lethal threats.[23] Feral pigs have been attributed to at least one death in Texas.[24] But the imagination of them as a future killing force, roaming the Texas countryside in violent gangs, is rampant in popular culture. For example, in cyber-punk author Neal Stephenson's recent near-future novel *Termination Shock*, one of the main characters is a Texan who takes up vigilante arms against feral pigs after a giant hog eats his daughter while she is playing in the yard (Stephenson 2021). In other words, rhetoric around feral pigs echoes the classic language of home-defence, characteristic of a romantic retelling of Texas' settler-colonial frontier past—defending the homestead against attacks from murderous Indigenous (framed as invader) others (Anderson 2005; Martinez 2018). Moreover, they are framed in language that mirrors conservative rhetoric about the need for guns to protect hearth and home and rhetoric about invasion of migrants from across Texas' southern border. Indeed, feral pigs weld these two positions together in suggestive ways.

For example, on 3 August 2019, a gunman, after posting a white-supremacist manifesto titled "The Inconvenient Truth" on far-right website *8chan*—entered a Walmart in El Paso, Texas and shot 46 people with a WASR-10 assault rifle, killing 23 of them. The assault, which specifically targeted individuals who appeared to the shooter to be Mexican or Latino, renewed the periodic debate over banning assault rifles in the US. As is common in the charged rhetoric of gun control and mass shootings in the US, the debate quickly devolved into a question of Second Amendment rights and self-defence. Progressive country singer-songwriter Jason Isbell entered the conversation, tweeting "You know what an assault weapon is, and you know you don't need one". A previously unknown tweeter named Willie McNabb responded to Isbell asking, "Legit question for rural Americans—How do I kill the 30-50 feral hogs that run into my yard within 3-5 mins while my small kids play?" McNabb gained a proverbial 15-minutes of internet notoriety, as his tweet quickly became a meme lampooned throughout the twitterverse.[25] But the humorous responses masked the ways that McNabb's tweet tapped into a much more serious conversation linking feral pigs, biopolitics, and race.

In his comments on state racism in *Society Must Be Defended*, Michel Foucault (2003:256) notes that "In the biopower system … killing or the imperative to kill is acceptable only if it results not in victory over political adversaries, but in the elimination of the biological threat to and the improvement of the species or race". Foucault's framing of threat and improvement are useful for understanding the rhetoric of feral pigs on the Texas frontier today. That is to say, feral pigs, as invader species, conjure a set of associations that link frontier masculinity with militarisation, lethal force, and the extermination of racialised others. Here, pigs are at once real threat and metonym. Drawing on Giorgio Agamben's (1998) well known theorisation of bare life and the sovereign ban—a framework which has often been applied to cross-border migration in the US (see, e.g., De Leon 2015)—we might say that such rhetoric positions feral pigs as *sus sacer*—beasts that can be killed but not sacrificed.

The rendering of feral pigs as *sus sacer* reinserts feral pigs directly into circuits of capital accumulation and economic activity on the Texas frontier. This is readily

visible in a range of hunting operations that have emerged in Texas over the past several decades that allow hunters the opportunity to hunt feral pigs with military weaponry. Commercial hunting operations are, of course, nothing new in Texas. Trophy hunts for whitetail deer, mountain lions, introduced wild boar, and other mega-fauna have long been major tourist draws throughout much of the state.[26] Many of the same operations that now offer pig hunts also continue to offer trophy hunts for "native" fauna as well. Yet, there is a marked difference in both the representation and the hardware used in hunting feral pigs. Where whitetail deer, for example, are hunted with rifles and are often preserved for both eating and for taxidermy trophies, many hunting operations in Texas offer hunters the opportunity to hunt pigs with fully automatic weapons, infrared goggles (for night-time hunts), and helicopters.

As one outfit offering helicopter hunting opportunities in West Texas asks, "Have you ever shot wild pigs from a helicopter? Helicopters + Guns = Fun".[27] Other outfitters boast of the unlimited numbers of feral pigs that can be killed in a single hunt, often peppering their websites with images of stacks of pig bodies. These sites emphasise both the killability of feral pigs and the excitement of the hunt—often using language which appears ripped from media trading on a romanticised notion of violence and war. For example, a commercial hunting operation that specialises not in helicopter hunts but in on-the-ground night hunts frames the feral pig hunt as close-quarters combat against a capable and dangerous foe.

> After spotting a group … we make our move in a single file line to limit our troop's silhouette against the night sky. With the wind in our favor, we creep through the fields and compose the remainder of our game-plan on the fly. Reaching a distance that borders hand-to-hand combat is an art form, and we paint in blood![28]

To emphasise the point, these hunts offer the opportunity for paying customers to inflict maximal lethal damage on feral pig herds. As one satisfied customer of a helicopter hunting operation notes:

> The hunt was a wild hunt so no guarantees, but the early morning flight was action packed. I hunted alone with the pilot and confirmed 19 kills with another 20 or so hits. The pigs would hole up sometimes in a bush after being shot. 240 rounds spent on a 90-minute flight.[29]

These hunts offer no opportunities to hunters other than the lethal elimination of an invader species. As an FAQ on the same site has it, "While hog meat is delicious, any feral pig shot from a helicopter must be left where they lay. This is an eradication hunt and not a game hunt".[30]

The question of edibility raises another dimension to the spectre of feral pig invasion. Can they be consumed and in what circumstances? As a rancher who has long hunted feral pigs on his own ranch-land described it to us, feral pigs make for excellent eating—particularly as sausage—as long as they don't get too big. Once feral pigs grow to over 100 pounds, they are often quite gamey in taste and not particularly suited for the central Texas palate. He did tell us, however, that prior to the Covid-19 pandemic there was an active export business

where dead feral pigs were exported to Italy, where their gaminess was considered a feature, not a bug.[31]

While the hunting of feral pigs is widespread across Texas, very few butchers process feral pig meat. This may be in flux. A handful of plants have begun to both slaughter and process feral pigs. In the progressive Austin and Houston food scenes, several restaurants have begun to feature feral pig on their menus (though tellingly, feral pigs are most often called "wild boar", a term presumably more palatable to the discerning customer). Further, several chefs in Texas have begun to frame the eating of feral pigs as an ethical imperative. Jesse Griffiths, a noted chef in Austin, for example, has founded an organisation called the "New School of Traditional Cookery" which takes clients on hunting and cooking expeditions where the focus is on the breaking down and proper culinary preparation of feral pigs. The organisation's mission is to reframe game and, particularly, feral pigs as part of the turn towards local agriculture and slow food—a move that they see as critical to a more sustainable food system. As the organisation's slogan proclaims, "Eat a hog, save the world" (see Figure 4).

Conclusion: The Anthropocene Beast?

In this paper, we have outlined a suite of ways for thinking with feral pigs that map their historical and contemporary role in assembling the Texas frontier. As a settler beast, the feral pig is constitutive of relations of dispossession, expansion, and expropriation that are signature conditions of settler colonialism at large. In other words, feral pigs might be understood not simply as a companion species to but also an agent of colonial expansion. As a melting-pot beast, feral pigs are a particular kind of emergent species assemblage—the results of a grand and long-term genetic experiment that not only are highly adaptive to the Texas landscape, but also a force capable of *shaping* ecology. In other words, feral pigs in Texas today benefit from the same kinds of diversity (genetic and otherwise) which is often celebrated in mythologies of America as a melting-pot nation at large. And as an invader beast, feral pigs animate a series of troubling tropes of masculinity, militarisation, and violence—tropes that continue to shape the everyday politics of life on the contemporary Texas frontier. Moreover, the production of feral pigs as *sus sacer* recentres relations of capital in frontier making in Texas, raising the questions of who profits from the killability of pigs and to what ends.

To call Texas a frontier assemblage is to index ways a space that has come to be known as the Lone Star State has been and continues to be marked by a set of relations of violence, expansion, dispossession, and extraction. To call this assemblage recursive is to say that while the Texas of today is quite markedly different than the Texas of the past, it continues to be shaped by the long tails of ecological, biopolitical, political-economic, and colonial relations. Further, it is also to acknowledge that recursive waves of frontier-making cannot be understood narrowly through the optics of capital or the agency of settler or Indigenous humans alone. While feral pigs are certainly not a key to understanding all of Texas's history and present, they have and continue to play constitutive roles in assembling this frontier. Feral pigs—and the politics of their ferality—make and

Figure 4: "Eat a Hog, Save the World" (source: photo by Jason Cons)

are enmeshed in settler-colonial relations in Texas. As such, feral pigs are a veritable settler-colonial beast.

Feral and ferality are concepts that have engendered a significant amount of conversation in multi-species and post-human scholarship (see Campos 2021). As many have pointed out, the concept signals categorical danger. To be feral is to be matter out of place, a risky notion that troubles our lazy distinctions between nature and culture. Such categorical murkiness is, as many have argued, what makes feral beasts killable, but not grievable (Rutherford 2018:207; van Dooren 2011; Yoon 2017). Yet, for many authors, this categorical confusion also marks the feral beast as a mascot of the Anthropocene. On the one hand, feral

beasts are cautionary tales—reminders of the modern sin of failing to love our monsters (Latour 2011; Rutherford 2018). On the other, they are markers of both human hubris and, perhaps, hope—symbols of the ways in which ecological systems reject projects of capitalist world-making, thrive in blasted landscapes, and upset taxonomies of domination and control (Briand 2021; Rutherford 2018; Tsing et al. 2020; van Dooren 2011).[32]

We are sympathetic to these readings and see our own thinking on feral pigs as in dialogue with them. Yet we wish, in closing, to offer a different way of thinking the feral pig's relationship to the Anthropocene. Here, we build on Heather Davis and Zoe Todd's call to place the Anthropocene's start date—the proverbial golden spike—at the dawn of the colonial period. As they argue:

> Our contention here is that the Anthropocene, if explicitly linked to the beginnings of colonization, would at least assert it as a critical project that understands that the ecocidal logics that now govern our world are not inevitable or "human nature", but are the result of a series of decisions that have their origins and reverberations in colonization. (Davis and Todd 2017:763)

It is in this sense that we propose that feral pigs might offer another, if different, example of an Anthropocene beast. The production of frontiers for accumulation, extraction, and expansion—and the violent relations profoundly shaping people and ecology that this expansion entailed—are the essence of settler-colonial politics. Feral pigs have played a role in assembling these frontier politics and histories in Texas and elsewhere in the United States. They both make and bear the marks of settler pasts in the present. They both blur and harden metaphorical and political borders. As such, they open a critical window onto the ways that colonial relations continue to shape life and ecology in the present.

Acknowledgements

Thanks to Townsend Middleton, Alex Blanchette, Ludek Broz, Erica Von Essen, Larissa Fleischmann, Miha Kozorog, Annika Pohl Harrisson, Erin Lentz, Raj Patel, members of the BOAR project at the Czech Academy of Sciences, participants in the Environmental Futures Workshop at the Max Planck Institute for Social Anthropology, and especially to Geronimó Barrera for translating the abstract. This work is part of the "Fencing the Feral" project funded by the Danish Independent Research Fund, grant number 0132-00065B.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Endnotes

[1] The Texas Department of Agriculture has introduced a series of successive interventions designed to win the "war" against feral pigs. For example, see https://www.texasagriculture.gov/NewsEvents/NewsEventsDetails/tabid/76/Article/6601/TEXAS-AGRICULTURE-COMMISSIONER-SID-MILLER-ANNOUNCES-NEW-PRODUCT-IN-FIGHT-AGAINS.aspx (last accessed 20 June 2023).

[2] In contrast to much work on resource frontiers that sees them largely through the lens of political economy. See, for example, David Harvey's (2003) well-known discussion of "accumulation by dispossession".
[3] The debate over the meanings of settler colonialism is expansive and beyond the scope of evaluation in this article (for an overview, see Dunbar-Ortiz 2021). Here, we join with framings that see settler colonialism as a structure and ongoing process, not a time-bound event (see Glenn 2015).
[4] While we focus here on colonial expansion in what has come to be known as the American South, pigs played a decisive role in early colonial expansion in Mesoamerica as well. As Arturo Arias (2021) notes, Spanish pigs brought by Cortés were vectors of *Salmonella enterica*, which may have killed as many as 15 million people.
[5] Historical scholarship on pigs in Texas has done less to tease out the different ways that Indigenous populations put pigs to use. Pigs likely played markedly different roles in different Indigenous communities with differing practices of mobility, cultivation, and settlement. That is to say, as Native Americans themselves were diverse, so likely were their uses of pigs. For a fascinating exploration that treats Indigenous uses of the pig in colonial New England, see Anderson (1994).
[6] While hunting and raising colonial pigs, Native Americans of the southeast also experienced harsh coemption from free-roaming sounders which destroyed important crop staples like maize.
[7] Spanish pigs brought not only food to the table for Native Americans, but also disease. Several scholars have argued that the first pigs brought to North America by de Soto could have contributed to the demographic collapse of Native American populations (Gradie 1984; Ramenofsky and Galloway 1997; Zadik 2005:56).
[8] In the southeast pigs were the preferred domestic animal of poorer people who did not own enough land to graze cattle.
[9] In Texas, these laws were enacted on a county-by-county basis. Texas State Law Library, "Animal Law—Livestock": https://guides.sll.texas.gov/animal-law/livestock (last accessed 20 June 2023).
[10] Similar introductions of European wild boars on game farms and reserves were conducted throughout North America and their subsequent interbreeding with feral pigs created many different pockets of hybridised pig populations.
[11] On non-human territorialisation, see Besky and Padwe (2016).
[12] We thank Alex Blanchet for this insight.
[13] As Thomas Fleishman (2017) notes, wild and domestic pigs are, genetically, the same species—one that is highly adaptive, resilient, and fertile in and of itself. While there is general agreement about the ways that interbreeding between different pig varieties in Texas has added to their adaptability and speed of reproduction, few studies seem to raise the question of precisely what traits are gained through this genetic mixing. For a fascinating study of the obverse of pig ferality—of the production of "real pigs" in North Carolinas—see Weiss (2016).
[14] US Department of Agriculture Animal and Plant Health Inspection Service, "Feral Swine—Identification": https://www.aphis.usda.gov/aphis/ourfocus/wildlifedamage/operational-activities/feral-swine/feral-swine-identification (last accessed 20 June 2023).
[15] Texas Parks and Wildlife Department, "Wild Pigs": https://tpwd.texas.gov/huntwild/wild/nuisance/feral_hogs/ (last accessed 20 June 2023).
[16] Texas Landowners Association, "Feral Hogs and White-Tailed Deer": https://landassociation.org/feral-hogs-and-whitetail-deer/ (last accessed 20 June 2023).
[17] There appears to be little in the way of conclusive evidence of this and many wildlife biologists are sceptical of such claims. See, for example, US Department of Agriculture National Institute of Food and Agriculture, "Does Predation by Feral Hogs Cause Rattlesnakes to Stop Rattling": https://feralhogs.extension.org/does-predation-by-feral-hogs-cause-rattelsnakes-to-stop-rattling/ (last accessed 20 June 2023).
[18] Indeed, for Mary Douglas (1966), pigs offer the classic example of category confusion and, thus, "danger" in Kosher law because they share cloven hooves with ungulates but do not chew cud.

[19] See O'Mahony (2020) for a fascinating counter-case, which explores feral rewilding in England as a field of social controversy, as opposed to an a priori bad.
[20] On slippages in the category of race between the human and the non-human, see Hartigan (2017) and Subramaniam (2001).
[21] Central Texas Feral Hog Task Force: https://feralhogtaskforce.com/ (last accessed 20 June 2023).
[22] Nicholas Reo and Laura Ogden (2018), in a brilliant rejoinder to this mode of thinking, point out that Indigenous groups in the Americas—in their analysis, Anishnaabe—understand invasive species as, on the one hand, always entangled with colonialism, and as the outcome of natural forms of migration.
[23] Such threats are more than just imaginary and feral pigs can be vectors for lethal diseases such as brucellosis and pseudorabies.
[24] In 2019, a pack of feral hogs attacked and killed an elderly woman in Anahuac, Texas (see Bogel-Burroughs 2019).
[25] Prompting, among other things, the podcast "Reply All", which explores internet culture, to release an episode on the incident titled "30–50 Feral Hogs".
[26] As many authors have pointed out, hunting, itself, is a practice that intimately weaves together masculinity, racial identity, and coloniality. For discussions, see Fine (2000), Haraway (1984), and Pandian (2001).
[27] Helicopter Pig Hunting, "Shoot Feral Hogs from a Helicopter All Year": https://www.helicopterpighunting.com/about-us/ (last accessed 20 June 2023).
[28] Prone Outfitters, "Texas Hog Hunting": https://proneoutfitters.com/texas-hunting/texas-hog-hunting/ (last accessed 1 June 2023).
[29] Helicopter Pig Hunting, "Reviews": https://www.helicopterpighunting.com/about-us/reviews/ (last accessed 1 June 2023).
[30] Helicopter Pig Hunting, "FAQ": https://www.helicopterpighunting.com/faq/ (last accessed 1 June 2023). Paolo Bocci (2017), in his study of goat eradication campaigns in the Galápagos, writes suggestively about the dilemmas, ethical and practical, of killing as care. Bocci's study is remarkable for its ethnographic attention to this dilemma amongst those who hunt goats, also from helicopters. While killing pigs on helicopter game hunts is also carried out under the frame of "care", the veneer of an ethical dimension to pig eradication is quite thin. As a rancher who runs a commercial game ranch told us, "There is no pig problem. For me, killing pigs is good business".
[31] We have, as yet, been unable to verify this.
[32] See Fleischman (2017) for a brilliant critique of this logic that attends to the relationship between domestic and wild pigs in the GDR.

References

Agamben G (1998) *Homo Sacer: Sovereign Power and Bare Life* (trans D Heller-Roazen). Stanford: Stanford University Press
Anderson G C (2005) *The Conquest of Texas: Ethnic Cleansing in the Promised Land, 1820-1875*. Norman: University of Oklahoma Press
Anderson J L (2019) *Capitalist Pigs: Pigs, Pork, and Power in America*. Morgantown: West Virginia University Press
Anderson V D (1994) King Philip's herds: Indians, colonists, and the problem of livestock in early New England. *The William and Mary Quarterly* 51(4):601–624
Anderson V D (2004) *Creatures of Empire: How Domestic Animals Transformed Early America*. Oxford: Oxford University Press
Arias A (2021) From genocide to Hierelas: The never-ending Maya genocide. In M Moraña (ed) *Liquid Borders: Migration as Resistance* (pp 183–195). New York: Routledge
Besky S and Padwe J (2016) Placing plants in territory. *Environment and Society* 7(1):9–28
Bocci P (2017) Tangles of care: Killing goats to save tortoises on the Galápagos Islands. *Cultural Anthropology* 32(3):424–449

Bogel-Burroughs N (2019) Feral hogs attack and kill a woman in Texas. *The New York Times* 26 November https://www.nytimes.com/2019/11/26/us/texas-woman-killed-feral-hogs.html (last accessed 20 June 2023)
Briand P (2021) On ferality (the great "feral Roomba" dismissal). In N Nova and DISNOVATION.ORG (eds) *A Bestiary of the Anthropocene* (pp 232–231). London: Onomatopee
Burgos-Paz W, Souza C A, Megens H J, Ramayo-Caldas Y, Melo M, Lemús-Flores C, Caal E, Soto H W, Martínez R, Álvarez L A, Aguirre L, Iñiguez V, Revidatti M A, Martínez-López O R, Llambi S, Esteve-Codina A, Rodríguez M C, Crooijmans R P M A, Paiva R P M A, Schook L B, Groenen M A M and Pérez-Enciso M (2013) Porcine colonization of the Americas: A 60k SNP story. *Heredity* 110(4):321–330
Campos L (2021) Feral Labs Network: "Going feral". *Makery* 14 May https://www.makery.info/en/2021/05/14/english-feral-labs-network-going-feral-by-luis-campos/ (last accessed 19 June 2023)
Clampitt C (2018) *Pigs, Pork, and Heartland Hogs: From Wild Boar to Baconfest*. Blue Ridge Summit: Rowman & Littlefield
Clark N (2003) Feral ecologies: Performing life on the colonial periphery. *The Sociological Review* 51(2):163–181
Cons J and Eilenberg M (2019) On the new politics of margins in Asia: Mapping frontier assemblages. In J Cons and M Eilenberg (eds) *Frontier Assemblages: The Emergent Politics of Resource Frontiers in Asia* (pp 1–18). Oxford: Wiley
Davies J (2021) Brexit and invasive species: A case study of the cognitive and affective encoding of "abject nature" in contemporary nationalist ideology. *Cultural Studies* 36 (4):569–597
Davis H and Todd Z (2017) On the importance of a date, or, Decolonizing the Anthropocene. *ACME: An International Journal for Critical Geographies* 16(4):761–780
De Leon J (2015) *The Land of Open Graves: Life and Death on the Migrant Trail*. Durham: Duke University Press
Douglas M (1966) *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*. New York: Routledge
Dunbar-Ortiz R (2021) *Not a Nation of Immigrants: Settler Colonialism, White Supremacy, and a History of Erasure and Exclusion*. Boston: Beacon Press
Essig M (2015) *Lesser Beasts: A Snout-to-Tail History of the Humble Pig*. New York: Basic Books
Fine L M (2000) Rights of men, rites of passage: Hunting and masculinity at Reo Motors of Lansing, Michigan, 1945–1975. *Journal of Social History* 33(4):805–823
Fleischman T (2017) "A plague of wild boars": A new history of pigs and people in late 20th century Europe. *Antipode* 49(4):1015–1034
Foucault M (2003) *"Society Must Be Defended": Lectures at the Collège de France, 1975–76* (trans D Macey). New York: Picador
Gaskamp J A, Cathey J C, Higginbotham B and Bodenchuk M J (2020) Wild pigs in south-central North America. In K C VerCauteren, J C Beasley, S S Ditchkoff, J J Mayer, G J Roloff and B K Strickland (eds) *Invasive Wild Pigs in North America: Ecology, Impacts, and Management* (pp 347–366). Boca Raton: CRC Press
Gibson A (2021) Harvesting hogzillas: Feral pigs and the engineering ideal. In L A Campos, M R Dietrich, T Saraiva and C C Young (eds) *Nature Remade: Engineering Life, Envisioning Worlds* (pp 60–69). Chicago: University of Chicago Press
Glenn E N (2015) Settler colonialism as a structure: A framework for comparative studies of US race and gender formation. *Sociology of Race and Ethnicity* 1(1):52–75
Gradie R R (1984) New England Indians and colonizing pigs. In W Cowan (ed) *Papers of the Fifteenth Algonquian Conference* (pp 147–169). Ottawa: Carleton University
Griffiths J (2021) *The Hog Book*. Austin: St John Press
Haraway D (1984) Teddy bear patriarchy: Taxidermy in the Garden of Eden, New York City, 1908-1936. *Social Text* 11:20–64
Hartigan J (2017) *Care of the Species: Races of Corn and the Science of Plant Biodiversity*. Minneapolis: University of Minnesota Press
Harvey D (2003) *The New Imperialism*. Oxford: Oxford University Press

Inwood J and Bonds A (2016) Confronting white supremacy and a militaristic pedagogy in the US settler-colonial state. *Annals of the American Association of Geographers* 106 (3):521–529
Latour B (2011) Love your monsters. *Breakthrough Journal* 2:21–28
Malkki L (1992) National geographic: The rooting of peoples and the territorialization of national identity among scholars and refugees. *Cultural Anthropology* 7(1):24–44
Martinez M M (2018) *The Injustice Never Leaves You: Anti-Mexican Violence in Texas*. Cambridge: Harvard University Press
Mayer J J and Brisbin I L (1991) *Wild Pigs in the United States: Their History, Comparative Morphology, and Current Status*. Athens: University of Georgia Press
Middleton T (2019) Frontier 2.0: The recursive lives and death of Cinchona in Darjeeling. In J Cons and M Eilenberg (eds) *Frontier Assemblages: The Emergent Politics of Resource Frontiers in Asia* (pp 195–212). Oxford: Wiley
Moore J (2015) *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. New York: Verso
Nova N and DISNOVATION.ORG (eds) (2021) *A Bestiary of the Anthropocene*. London: Onomatopee
O'Mahony K (2020) Blurring boundaries: Feral rewilding, biosecurity, and contested wild boar belonging in England. *Conservation and Society* 18(2):114–125
Pandian A S (2001) Predatory care: The imperial hunt in Mughal and British India. *Journal of Historical Sociology* 14(1):79–107
Peretti J (1998) Nativism and nature: Rethinking biological invasion. *Environmental Values* 7 (2):183–192
Ramenofsky A F and Galloway P (1997) Disease and the Soto entrada. In P Galloway (ed) *The Hernando de Soto Expedition: History, Historiography, and "Discovery" in the Southeast* (pp 259–279). Lincoln: University of Nebraska Press
Reo N J and Ogden L A (2018) Anishnaabe aki: An indigenous perspective on the global threat of invasive species. *Sustainability Science* 13(5):1443–1452
Rutherford S (2018) The Anthropocene's animal? Coywolves as feral cotravelers. *Environment and Planning E: Nature and Space* 1(1/2):206–223
Shinozuka J (2022) *Biotic Borders: Transpacific Plant and Animal Migration and the Rise of Anti-Asian Racism in America*. Chicago: University of Chicago Press
Snow N, Jarzyna M and VanCauteren K (2017) Interpreting and predicting the spread of invasive wild pigs. *Journal of Applied Ecology* 56(6):2022–2032
Stephenson N (2021) *Termination Shock*. New York: William Morrow
Subramaniam B (2001) The aliens have landed! Reflections on the rhetoric of biological invasions. *Meridians* 2(1):26–40
Towne C W and Wentworth E N (1950) *Pigs from Cave to Corn Belt*. Norman: University of Oklahoma Press
Tsing A L, Deger J, Keleman Saxena A and Zhou F (eds) (2020) *Feral Atlas: The More-Than-Human Anthropocene*. Stanford: Stanford University Press
van Dooren T (2011) Invasive species in penguin worlds: An ethical taxonomy of killing for conservation. *Conservation and Society* 9(4):286–298
Weeks P and Packard J (2009) Feral hogs: Invasive species or nature's bounty? *Human Organization* 68(3):280–292
Weis T (2021) Animals as and on resource frontiers. *Commodity Frontiers* 3 https://doi.org/10.18174/cf.2021a18154
Weiss B (2016) *Real Pigs: Shifting Values in the Field of Local Pork*. Durham: Duke University Press
Yoon H (2017) Feral biopolitics. *Angelaki* 22(2):135–150
Zadik B J (2005) "The Iberian Pig in Spain and the Americas at the Time of Columbus." Unpublished MA thesis, University of California, Berkeley