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# What's a Guanaco?: Tracing the Llama Diaspora Through and Beyond South America

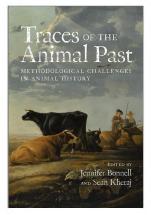
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#### TRACES OF THE ANIMAL PAST: METHODOLOGICAL CHALLENGES IN ANIMAL HISTORY

Edited by Jennifer Bonnell and Sean Kheraj

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### What's a Guanaco? Tracing the Llama Diaspora through and beyond South America<sup>1</sup>

Emily Wakild

Let us begin with Spook the llama. Spook lived in the animal enclosures at New York's Central Park Zoo in 1912.<sup>2</sup> Caretakers described Spook as a "morose, cantankerous" soul inhabiting the back of the deer range. Initially forlorn by this location, he looked out the back door at the road that circled past the pen. The busy street proved entertaining as it was full of noisy automobiles and anxious drivers honking. Spook watched the cars and, before long, learned to honk. Or so reported the head keeper at the zoo, Bill Snyder, who claimed "Spook thrust his head forward, drew back his lips so that his teeth were showing, and made a low and distinct sound like an automobile horn." Spook responded to honks, instigated them, and generally wreaked havoc distracting drivers with his uncanny honking. Complaints mounted and Snyder moved Spook upstate to a pasture along the river. Rather than live out his days peacefully, Spook observed the ships and soon learned to imitate boat whistles, restarting this cycle of imitation.

What does a historian *do* with an animal like Spook? What does this glimpse into a single llama's life provide? Is it merely a story, a fleeting source of entertainment? Or can historians use Spook, and animals like

him, as sources for key questions about multi-species engagements and their significance? The patterns suggested by Spook's short biography illuminate the features of a modern llama diaspora. That is, since at least the 1530s, llamas and their kin have been in global circulation, attached to people and human interests, and carrying with them deep traditions of Andean practices. This circulation and movement-forced, retaining cultural indicators of identity (picture a llama in a *chullo* hat), and connected to sending and receiving communities-illuminates how multi-species assemblages build geographical footprints. It also suggests that even if historians have not written about them, the animals are always there, in the archives, in the stories, in human history. Although llamas have travelled, they have not really assimilated or become naturalized to new places; and there is no "invasive" llama problem. The idea of a diaspora, which has deep significance in Jewish, African, and Armenian histories, provides a useful concept for animal historians because it opens a path to examine the everyday existence of particular animal groups and the ways their evolutionary trajectory has been altered by diffusion. By considering animals as obvious yet as strange as llamas, diasporic thinking can reframe categories of animals from domesticated, threatened, endangered, or exotic species toward the ordinary and cumulative experiences of animals and the people who retain cultural knowledge about them

Spook and his kin raise issues of power, vulnerability, and agency in animal history. The regimes of compulsion—decades of capitalist and colonialist relations between the United States and Andean countries partially explain what a llama was doing in New York. Spook's behaviour suggests he acted unexpectedly: he forced human handlers to adjust their thinking about his capacity, and in his mimicry of the world around him, he provided evidence of the ways humans have been involved in the lives of other beings, and vice-versa.<sup>3</sup> This does not exclude the perverse political, social, and economic incentives that placed limited value on the lives of not just exotic animals, but those who knew them well enough to control, breed, care for, and transport them. Perhaps this charismatic individual demonstrated autonomous intention—of the premeditated or rational sort—but more interestingly, his existence suggests ways other creatures become companions in a chaotic and unequal world. Spook's honking offers piecemeal resistance (through bonding and forming relationships) to a colonial regime that objectified animals in zoos. Whether or not llamas have had agency is less pertinent here than the ways llamas have and have not quite acclimatized to new habitats. They remain associated with their homeland; they remain exotic rather than quotidian. If the llamas themselves long for or feel connected to their ancestral territory, we can never know.

This chapter considers, unevenly, four camelid species native to the South American highlands (llama, alpaca, guanaco, and vicuña) and varied examples of human populations that accompanied them around the world. By drawing on literature of diasporic populations, this chapter examines two general movements that constitute the llama diaspora. The first movements, intellectual in nature, explain the existence of animals like Spook. Performance, entertainment, curiosity, ideas, and scientific descriptions uphold one set of forces that inspired animal movement. That is, by gifting and describing these animals, knowledge about their beings and about their products, uses, and qualities travelled the world. The second set of movements includes the physical and geographical movements of the animals—from wide open steppes into stone-hewn corrals for domestication, and from the steep slopes of the Andes to the mountain ranges of North America—where they worked as pack animals and companions of domestic sheep.

The key to an argument about an animal diaspora resides in concepts of movement, but it goes further. Diaspora is an orientation device (to borrow a term from Sara Ahmed) that allows us to trace genealogies of exchange and production across traditional lines, to examine how llamas inhabit spaces, and to trace what they are directed toward.<sup>4</sup> The physical and geographical movements of people with and near llamas reoriented the living animal bodies toward new experiences. Camelids' histories have travelled with them, although this has not generally been recognized—for instance, symbolic visual representations of camelids' histories are found in the ribbons and decorations that derive from Andean beliefs and traditions and that are tied into a llama's wool. By engaging larger diasporic processes, historians can reconceptualize shifts in economic transactions and cultural diffusion. Admittedly an imperfect and provocative fit, the idea of diaspora highlights the processes of intermingling—across cultures, across species, and across homelands. Recognizing the human pressures and affections exerted on other species through time and space more fully accounts for ways of co-existence in a multi-species world and methods for rethinking the multi-natural spaces that humans inhabit.<sup>5</sup>

#### Camelid Diasporas

Llamas have been transported around the world in vast numbers and with varying degrees of permanence. What these movements have meant, why they have occurred, and how they changed over time provides insight into how unique assemblages of life have been constituted over time. Keith Kenny argues that a diaspora should be seen "not as a social entity that can be measured but as an idea that helps explain the world migration creates.<sup>36</sup> Interpretations that imply the persistence of a homeland despite the scattering of peoples have given way to concepts such as transnational circulation, multi-directional flow, hybridity, creolized cross-cultural exchange, and global networked communities.7 Nicholas Von Hear identifies three minimal criteria for diasporas: first, a population dispersed from a homeland to two or more territories; second, an enduring presence abroad; and third, a kind of exchange among spatially separated populations.8 Llamas certainly qualify for the first two criteria, but the idea of exchange is more tenuous (although one might expand the concept of exchange to include cross-species exchanges, such as between guanacos and alpacas). Llamas have had difficulty naturalizing in new places without significant human time and investment. In part, this is because they are susceptible to diseases and to predators that also target flocks of sheep, for example. Llamas alone have no diaspora; but llamas deeply entangled with human populations do.

Here, interdisciplinary work on other animals helps develop these linkages. Anthropologist Laura Ogden suggests that considering the migration and (re-)settlement of non-human beings as "diasporas" illuminates the political complexities of loss and change. Concerned with the eradication of North American beavers introduced at the tip of South America, Ogden argues that reframing invasive species as diasporic populations alerts us to the emergence of identity, subjectivity, and experience.<sup>9</sup> This terminology brings attention to questions of belonging (which species belong where?) and also to origins (where and when have significant differentiations occurred?). Diasporas present complications with the commodification of



Fig. 14.1 Present-day range and approximate size of llamas throughout South America. Drawing by Colleen Campbell.



Fig. 14.2 Present-day range and approximate size of alpacas throughout South America. Drawing by Colleen Campbell.



Fig. 14.3 Present-day range and approximate size of guanacos throughout South America. Drawing by Colleen Campbell.



Fig. 14.4 Present-day range and approximate size of vicuñas throughout South America. Drawing by Colleen Campbell.

certain species and impediments that arise from industrial production, such as genetic vulnerability and disease susceptibility. Furthermore, the idea of a diaspora directs attention to forced movement born out of the structural priorities of human populations and may highlight the uncertainty of a human-animal divide. As Bénédicte Boisseron points out, "exposing the arbitrariness of divides—whether based on race, gender, or species—is the root of any resistance against discrimination and oppression."<sup>10</sup> Boisseron provides useful ways for thinking through the implications of human-animal comparisons, especially those loaded with racial hierarchies, by shifting our focus to the inter-species alliances and intersectional encounters that open spaces for dual empowerment.

#### What's a Guanaco?

Camelids, like horses, originated on the Great Plains of North America forty to fifty million years ago but disappeared at the end of the Pleistocene, 10,000 to 20,000 years ago. Living South American camelids all belong to the taxonomic order Artiodactyla (even-toed ungulates), the suborder Tylopeda (pad-footed ungulates), and the family Camelidae. There are four separate species: the llama (Lama guanicoe), the alpaca (Vicugna pacos), the guanaco (Lama guanicoe), and the vicuña (Vicugna vicugna).<sup>11</sup> Early genetic work supported the suspected ancestry based on anatomical traits which showed that the guanaco was the ancestor of the llama and the vicuña of the alpaca, but recent studies reveal that the guanaco is also related to the alpaca. Llama mummies found in coastal Peru from 700 to 1,000 CE show a range of breeds and phenotypes that do not perfectly match today's constellation of species and breeds. Within a little more than a century of the 1532 arrival of the Spanish in the Andes, administrative documents report a population loss of up to ninety per cent of llamas.<sup>12</sup> This decline caused a bottlenecking event, associated largely with diseases introduced from European livestock, causing a significant "pinching out of variability and range" of camelids.13

Camelids have specific features that they share in common, and individual species have defining characteristics. All camelids have long legs and necks, complex intestinal systems, high crowned teeth, and nailed toes. One species can be distinguished from another by size, colouring, and range. Of the four species, only llamas and alpacas have been domesticated and no longer exist in the wild. Llamas are much larger than alpacas, have banana-shaped ears, and walk with their tails erect. Alpacas have long wool, spear-shaped ears, and do not raise their tails; they thrive in the arid steppes and plains at altitudes above 1,000 metres. Llamas and alpacas come in a range of colours and patterns, including white, brown, and black. Of the wild species, guanacos grow larger than vicuñas and inhabit lower altitudes ranging to sea level; both species have fawn-brown wool on their backs and white bellies. Llamas and guanacos are arid-adapted; vicuñas and alpacas remain water-dependent. All camelids are social animals, mark territory, defecate in dung piles, and form male-dominated "harems" or all-male groups in the wild.<sup>14</sup> All South American camelids can interbreed and produce fertile first-generation offspring. In 1998, the world's first camel-llama was born in Dubai.<sup>15</sup>

General consensus exists on the idea that llamas were first domesticated in the Andes around 4,500 BCE.<sup>16</sup> The study of domestication includes evidence from the zooarchaeological record, genetics of living and prehistoric camelids, and behavioural and biological data from living populations. Altering the relationship between humans and a non-human animal from predation to a symbiotic relationship results in genetic changes, structural modifications, and the emergence of new disease ecologies.<sup>17</sup> Reasons not to domesticate existed: for instance, vicuñas provided a stable, remunerative resource in ranges above fertile agricultural lands.<sup>18</sup> Overall, the vertical distribution of settlements in the Andes enabled by camelids took advantage of the upper limits of agriculture and led to prosperous trade networks and resource exchanges.

Camelid or llamoid species exist in a strange scientific place—in the middle of a number of categories. They are not the largest, the most wide-spread, or the most aggressive, prolific, or mysterious. Yet they are the only large mammal ever domesticated in the Americas.<sup>19</sup> They are also distinguished by what they are not (sheep, camels, horses). Llamas and alpacas are present—in petting zoos, multicultural fairs, dude ranches—throughout the US and Canada, although they are rarely the main attraction or the most common animals. Rather than displace or transform domestic livestock herds in North America and Europe, camelids have been grafted onto the same terrain, producing a novel cultural ecosystem that doesn't replace but only augments the pre-existing one. Llamas have entered into

new arrangements, but at least for their human keepers, the species has never entirely abandoned its association with and concentration in its native Andean homeland.

#### Intellectual Movements

To know what a guanaco is, we must know those who have known it. Opening historical inquiry to animal knowledge widens the aperture of history itself. One way to trace the routes of animals is through the ways people have thought about them over time. Domestication is both a process and an idea, an intellectual experiment in shifting an animals' nature to serve humans that manifests in a physical process. Nerissa Russell, for example, has argued that the concept of domestication structures the thinking of researchers in the present and did the same for herders in the past because domestication has both biological and cultural components.<sup>20</sup> Scholars debate the appropriateness not only of the term, but also of the potential candidates for domestication. Consensus generally rests on animals with behavioural traits and social structures that make them adaptable, including characteristics such as diet flexibility and responses to humans that facilitate mutual relationships. Domestication is colloquially referred to as an event, but this connotation ascribes a fixity and permanence to a process that, as archaeologists and ethnozoologists explain, rarely has such clarity.<sup>21</sup> Just what domestication means and how it occurs is a topic of wide scientific discussion that I will not revisit here. What is unique about camelid domestication, however, seems to be the debates over how frequently and independently it occurred, the lack of availability of similar candidates in South America for potential domestication, and the missing rationale for domestication when compared with Eurasian animals.

Certain concepts surrounding llamas exist in the Andes among herders whose livelihoods depend on the animals. These include the animals as kin and part of a broader patrimony. In this setting, llamas belong not to the herder but to the *wamani*, who lives in the mountains nearest his corral.<sup>22</sup> *Wamani* are powerful supernatural beings that humans interact with and that must be placated to raise animals successfully. These beings can make a herd thrive and expand, but only through gifts and prayers. The process of giving respect may include a ceremony of renewal, where some llamas are dressed up like humans and some herders imitate llamas. Two animals may be "married" on a wedding bed; others may be made to imbibe alcohol or purified with a snow-like powder. Ritual obligations include the animals as members of the *allyu*, or place-based kin unit. Llamas were highly valued in pre-Columbian economies as gifts among kin or as grants from the more powerful. Their lungs and entrails were read for omens, potatoes were bathed in llama blood to bring about good harvests, and artistic representations on ceramics and stone indicated their important but ordinary existence.<sup>23</sup> Significantly, llamas have been and remain the only animal that can be consumed during solemn events, such as funerary rites, or during the religious celebration of Carnival. Llamas are offered to and symbolically consumed by mountain or Earth spirits (*Apus* or *Pachamama*). Wild animals, including guanacos and vicuñas but also deer, are notably absent from these cultural traditions.<sup>24</sup>

No intellectual exchange since domestication has more affected the llama than the arrival of Europeans in the Americas. The Italian sailor Antonio Pigafetta who sailed with Magellan is credited with giving the region of Patagonia its moniker and likely published the first written description of the camelids. He characterized the guanaco as a hybrid assemblage of recognizable parts from other animals, "the head and ears of a mule, the body of a camel, the feet of a deer, and the tail of a horse."<sup>25</sup> Spaniards frequently described them as awkward sheep. These descriptions and ideas became not only archetypes for understanding the relative physiology of the animals, but also passageways of knowledge transfer among networks of sociable scientists.<sup>26</sup>

Camelids figured in interesting ways—alongside extinct mastodons and giant ground sloths—in the debates over the supposed inferiority of American natures.<sup>27</sup> Chilean natural history expert and Jesuit priest Juan Ignacio Molina argued in 1776 that the South American camelids were "similar to but more elegant and better contoured than" camels. The camel, he explained "is a monster to tell the truth, compared to these quadrupeds." He reported that locals seemed to think they could live up to thirty years and described them as forming an intermediate gradation of beings alongside goats, deer, and camels.<sup>28</sup> Molina's work was a precursor for other scientists, including Charles Darwin, who described the guanaco as a "South American camel or an ass with a very long neck." Darwin noted that the guanaco was timid, wild, and skittish, and that the guanaco's shrill whistle could be heard before the animals were seen. He observed trails beaten into hills by herds of up to 500 animals, yet, he erroneously claimed, the animals' curiosity would render them easily domesticated.<sup>29</sup> Molina's and Darwin's estimations differed but their ideas on camelids continued to shape scientific thinking.

The relationship between wild and domesticated fauna re-emerged in the first comprehensive survey of fauna of a South American country completed for the Argentine government in 1963. Juan Godoy, the lead scientist and author of this encyclopedic work, wrote that the camelids were most notable for the ways they prospered in the *altiplano* and desert conditions, where other livestock could not.<sup>30</sup> The resourcefulness of these animals in the Andes contextualizes their development and may help explain why they adapted so well to other places and landscapes.

What people thought about llamas exerted considerable influence on the products made of or provided by the animals. The wool, meat, milk, dung, bezoar stones (pebbles found in the gastrointestinal tracts, thought to contain medicinal or healing powers), and other products were believed to carry productive and reproductive energies. Wool is among the most charismatic of products and various arguments exist for justifying the high quality of camelid wool: finer than cashmere, it is known for its exquisite softness and warmth. More specialized applications of animal-derived products-such as the use of vicuña meat to cure hernias-arose in various places.<sup>31</sup> Llama meat, often dried and consumed as a type of "jerky" (charqui), accompanied potatoes as staples of Andean diets. Community herds of animals co-existed with individually marked and owned animals.<sup>32</sup> The absence of particular products has salience when considering the potential of diasporas to explain human interactions with non-human species. The geographer Daniel Gade examined reasons for why the llama remained "unmilked"—an oddity when compared to ox, cows, sheep, and other domesticated ungulates.<sup>33</sup> Gade argued that cultural prohibitions explain the absence of commercial enterprise in llama milk products and its cultural rarity among subsistence users. Archeologist Katherine Moore similarly notes that the lack of milking raises unique questions about the integration of agriculture and pastoralism, indicating a process with no close analogues elsewhere.34

Wild camelids are somewhat unique in that they can provide one of the more coveted products-wool-without compromising their wild station or necessarily sacrificing their lives. Collecting feathers, eggs, or dung is somewhat similar given the "free" status of these products, but wool is unique in that it must be shorn forcefully from the animals. Vicuña conservation challenges assumptions about the circulation of animal products and what makes animals wild.<sup>35</sup> Twentieth-century luxury demand for wool increased until vicuña populations dropped from an estimated one million animals across their entire range in 1940 to a nadir of 6,000 by 1965.<sup>36</sup> In response, Peruvian officials signed international treaties restricting trade (CITES), set up a territorial reserve, and enacted community development protocols to allow residents to sell vicuña wool upon population recovery. Results rapidly exceeded expectations and, within a decade, the pressures of animal abundance threatened the reserve's ecological viability. The Shining Path guerilla war disrupted the vicuña reserve in the 1980s allowing poachers to resume illegal harvests. When political stability returned in the 1990s, the national government revived conservation measures, especially the reserve and harvest restrictions. More than 350,000 wild vicuñas live in Peru today. The transformation of vicuña wool from a luxury item into a symbol of national pride and community development highlights the range of potential uses of camelid products. The surviving vicuña have been distributed across the Andes and some concern remains for the genetic weaknesses created through the near-extinction and regeneration of the population.

Llamas have been brought around the world for reasons of human entertainment. Historian Helen Cowie chronicles the first arrival of a llama in Europe, as a gift to the Holy Roman Emperor in 1558. Enthralled onlookers in the Dutch city of Middleburg examined the llama, along with armadillos and anteaters, and forced the revision of zoological classifications inherited from the Greeks and Romans.<sup>37</sup> Llamas inhabited zoos in London by the mid-nineteenth century, travelled with circuses, and became staples at county fairs. Performing in venues from museum dioramas to petting zoos, llamas radiated magnetism in their stoic stances, raised eyes, elevated ears, and revealing noises (think Spook). To be sure, llamas did not have a universal reputation for pleasant performances. P. T. Barnum's catalogue of animals noted in 1879 that "[w]hen irritated they eject the contents of their mouths upon the offending party; the substance discharged is exceedingly disagreeable."<sup>38</sup> Gift llamas abounded in some circles. <sup>39</sup> US Secretary of State William Jennings Bryan was sent a prize curly-haired llama by the mayor of Buenos Aires in 1914. The llama, along with five others, was ordered deported when found to contain hoof-and-mouth disease.<sup>40</sup> A similar incident occurred a year and a half prior when three llamas destined for a Kansas City zoo were found to have the disease. Argentine authorities refused to repatriate the animals, and the captain had them shot and thrown overboard; their bodies were found floating ashore in New Jersey the next day.

#### **Physical Movements**

If intellectual movements provide the backdrop for the diasporic shifts of llamas, physical movements are their corollary. In important ways, animals allowed the occupation and use of places that made little economic sense without them. In their evolutionary ranges, camelids link disparate parts of the continent-inhabiting niches in high-altitude mountainous areas and moving from the *puna* grassland into corrals toward domestication within those same environments. Rita López de Llergo noted that ways that camelids inhabited hostile, hard to reach landscapes that in turn led to isolated lives in the highland *puna* environment, where festivals were key social events that brought pastors into periodic contact with others.<sup>41</sup> Similarly, Javier Puente describes how a suite of animals, including sheep and camelids, turned high-altitude landscapes into domains of economic profitability.<sup>42</sup> Domestication has modern analogues, ones that raise important questions about how diasporic populations inhabit the Anthropocene. Regular discussions of hybrids-paco-vicuñas, for instance-allude to selective and continuing processes of interbreeding.43 Domestication and transference or acclimatization are analogous but not equal processes. Nevertheless, attempts to re-situate llamas highlight the difficulties of secondary domestications. Acclimatization societies tried to bring the llama in large numbers to Australia in the 1860s. Their failure indicates the difficulty these animals had in establishing wild or feral populations in places where the Old World camel had no trouble.44

Llamas moved great distances for reasons of labour. Andean slopes meant difficulty transporting loads of cargo from cotton cloth to loads

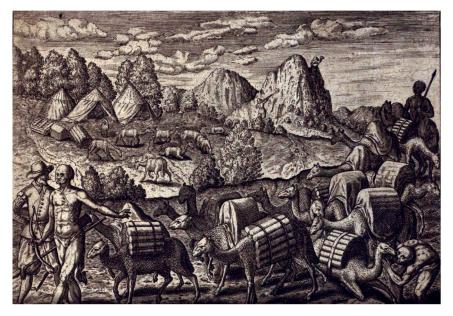


Fig. 14.5 Theodor de Bry, Artist, *Americae: Nona y pcftrema pars*. (Frankfurt: Matthew Becker, 1602). Llama detail from a set of twenty-five plates and captions, "IV. De indicis ovibvs, Metal-la ex montanis exportantibus." Book 1072068111, page 16 of the collection available through the Bodmer Lab through the University of Geneva, viewable online at: https://bodmerlab.unige.ch/recits-et-images/debry/#/grands-voyages/GVIX. Llamas depicted show character traits including stubbornness seen as lying down, docility to work in teams, and ability to carry loads from the mines.

of silver. Llamas helped. The Incas found this true along their intricate and expansive road system; the Spanish found it true for exporting and removing silver from high Andean mines, as depicted in the drawings of mining by Theodor de Bry from 1602. Beasts of burden are so called because they perform labour so that humans do not have to. This simplified transaction has near-universal appeal, leading to legal and juridical forms of property holding in some cultures.<sup>45</sup> Llamas have similarly been used to move people and goods in the Grand Canyon of Arizona, in the Rocky Mountains of Colorado, and in the Himalayas of Nepal.<sup>46</sup> Llamas and alpacas experienced a boom in population within the US during the 1980s and 1990s as they were bred on large farms and auctioned off to small farms to serve as pets, mascots, and even protectors of sheep, a role which they served poorly.<sup>47</sup> Llamas have certain evolutionary features that make them suitable for carrying loads in mountain landscapes. For instance, they are smaller and less destructive on trails than horses or mules, and their calm demeanors allow them to be transported on jet boats and planes for hunting expeditions.

Labour has embedded in its categorization an expectation of reward or coercion and an attachment to productivity. While the usefulness of camelids is apparent in historical sources, their resistance to labour, particularly the resistance of the alpaca, is also apparent. In this sense, labour is a movement of resistance and expression at the same time as it is something acted upon the animals. In this volume, J. Keri Cronin uses a 1916 painting to contextualize the juxtaposition of a dead pig lying frozen and prostrate in an outdoor winter scene with a grey horse labouring for humans centred in the frame. In addition to artistic depictions, scholars such as Massuni and Herzog have examined whether the efforts exerted by animals can be considered more than "normal" or reflexive and instead expressive.<sup>48</sup> In other words, does the work a llama undertakes to spit constitute an instinct, an act of expression, or labour on the animal's own behalf (labour in the sense of resistance)? In the same de Bry engraving (Figure 14.5) of the llamas carrying silver, an animal sits in resistance and must be cajoled into returning to work.49

Beyond labour as embodied work, labour as knowledge shaped llama populations because of the acute and special understandings that accompany animals. Laboured knowledge might include the descriptions of animal behaviour by scientists but also traditional ecological knowledge, such as how to convince a stubborn llama who has refused to keep working. Veterinarians, handlers, shepherds, packers, zookeepers, and others similarly develop hands-on, proximate knowledge of these animals and can themselves move in diasporas. Additional examples of laboured knowledge include H2-A visa recipients that come to the US to work shearing sheep.<sup>50</sup> These workers qualify for this exchange through their expertise shearing sheep and camelids in South America. On the other side of this labour exchange, starting in the 1960s, young adults from the US served as graduate students, peace corps volunteers, and agricultural specialists observing guanacos and vicuñas in South America, and they later used that knowledge to influence bovine grazing policies and the formal scientific study of camelids in the US.

Historical methods have the potential to chart wide-ranging contours of how humans have understood other animals and to suggest how these understandings influence the bodies of living beings. Brett Walker argues that the lens of intimacy provides a particularly compelling way for viewing animals because intimacy highlights the violence and transcendence of trans-species alliances.<sup>51</sup> What might we gain from knowing how animals have dispersed across the world? Patterns of knowledge, disease ecology, and economic interplay are a start. By highlighting ways of knowing-from biologists, veterinarians, entertainers, businesspeople, and pet-keepers—and embracing a transference of human cultural constructs to multi-species assemblages, we might begin to centre a synthesis that makes space for the personal and the perspectival. Considering diasporic experiences-knowing where and why all the llamas have gone and what they have done—opens up evolutionary processes to an intergenerational scale and causes us to pose ethical questions about species hidden in plain sight. That is, to focus only on llamas used in agriculture or commerce eliminates the space to consider that animals themselves, through a series of interactions, may have chosen cohabitation at various junctures.<sup>52</sup>

Although a llama imported to New York City may never return to its native Andean homeland, considering its life as part of a layer of connection with identifiable patterns emboldens a post-national geography. Attention to the interconnection of the processes that allowed an animal to become domesticated and then enclosed in an urban area provides insight beyond but inclusive of market-driven analysis. Recognizing the human pressures exerted on other species illuminates both the resilience and resistance of those animals. This line of thinking provides a sense of wonder for the past but also for the unknowable inner lives of animals. Diasporic conceptualizations similarly provide acceptance of a multi-species world where llamas may reside in our intellectual, physical, and geographical present.

#### NOTES

- 1 The author would like to thank Jennifer Bonnell, Sean Kheraj, Marcel Martel, and Jay Young for the inspiration behind the "Traces of the Animal Past" project and the invitation to contribute to it. Tina Loo and Colleen Campbell as well as conference contributors gave excellent comments that improved the essay, while Colleen Campbell provided elegant illustrations. Madisen Miller assisted with the initial research. The amazing Mavens collective of the Women's Environmental History Network gave constructive and critical feedback on the conceptual orientation of the ideas within.
- 2 "Park Llama Honked Just Like an Auto," New York Times, July 29, 1912.
- 3 Vinciane Despret, "From Secret Agents to Interagency," *History and Theory* 52, no. 4 (December 2013): 36.
- 4 Sara Ahmed, "Orientations: Toward a Queer Phenomenology," *GLQ: A Journal cf Lesbian and Gay Studies* 12, no. 4 (2006), 543–74.
- 5 Patricia Marx, "Pets Allowed: Why Are So Many Animals Now in Places Where They Shouldn't Be?" *The New Yorker*, October 20, 2014. Marx takes an alpaca to a drugstore, and almost on an Amtrak train. See also the work on multi-natural traditions by anthropologists Eduardo Viveiros de Castro ("Perspectivismo e multinaturalismo na América indígena," in *A inconstância da alma selvagem e outros ensaios de antropologia* [São Paulo, 2002], 345–99) and Ricardo Cavalcanti-Schiel ("Las muchas naturalezas en los Andes," *Per.féria: Revista de Recerca i Formación en Antropologia* 7 [2007]).
- 6 Keith Kenny, *Diaspora: A Very Short Introduction* (Oxford: Oxford University Press, 2013), 1.
- 7 Graham Huggan, "Post-coloniality," in *Diasporas: Concepts, Intersections, Identities*, ed. Kim Knott and Seán McLoughlin (London: Zed Books, 2010), 56–57
- 8 Nicholas Van Hear, New Diasporas: The Mass Exodus, Dispersal and Regrouping cf Migrant Communities (Seattle: University of Washington Press, 1998), 6.
- 9 Laura A. Ogden, "The Beaver Diaspora: A Thought Experiment," *Environmental Humanities* 10, no. 1 (2018): 63–85.
- 10 Bénédicte Boisseron, *Afro-Dog: Blackness and the Animal Question* (New York: Columbia University Press, 2018), xii.
- 11 Helen Cowie, *Llama* (Reaktion Books, 2017), 10–12.
- 12 Jane Wheeler, "Evolution and Present Situation of the South American Camelidae," Biological Journal of the Linnean Society 54, no. 3 (1995), 271–95; Jorge A. Flores Ochoa, Llamichos y poqocheros. Pastores de llamas y alpacas (Cuzco: Consejo Nacional de Ciencia y Technologia, Centro de Estudios Andinos Cuzco, 1988).
- 13 Katherine M. Moore, "Early Domesticated Camelids in the Andes," in *The Archaeology cf Andean Pastoralism*, ed. J. M. Capriles and N. Tripcevich (Albuquerque: University of New Mexico Press, 2016), 20–22.
- 14 The southernmost reaches of the camelid's natural range include areas of Patagonia. Diego Rindel and Juan Bautista Belardi, "Mortandad catastrófica de guanacos por estrés invernal y sus implicaciones arqueológicas: el sitio alero los guanacos 1, Lago Cardiel (Provincia de Santa Cruz, Argentina)." Magallania 34, no. 1 (2006): 139–55.
- 15 Cowie, Llama, 26-27.

- 16 Moore, "Early Domesticated Camelids," 17.
- 17 Jane Wheeler, "On the origin and early development of camelid pastoralism in the Andes," in Animals and Archeology, ed. J. Cultton-Brock and C. Grigson (Oxford: British Archaeological Reports, 1984), 395–410.
- 18 See Bonavia "The Domestication of Andean Camelids," 144; and J. W. Rick, Prehistoric Hunters of the High Andes (New York: Academic Press, 1980).
- 19 Jared Diamond's chapter, "Zebras, Unhappy Marriages, and the Anna Karenina Principle: Why were most big wild mammal species never domesticated?," in Guns, Germs, and Steel: The Fates of Human Societies (London: Vintage, 1997). While the term "camelids" may not be a household name in English-speaking cultures, the animals called camelids are scientifically and culturally grouped as such throughout the Andes; recognizing one lends easily to recognizing another and though they can be differentiated, grouping them as camelids makes as much sense as would "horses" or "wolves" even though they span the divide across wild and domesticated.
- 20 Nerissa Russell, "The Wild Side of Animal Domestication," Society & Animals 10, no. 3 (2002), 285–302. The literature on domestication is vast though somewhat under-analyzed by historians. Most literature begins with and analyzes Charles Darwin, although more recent studies take up the idea of human domestication as well, Lorenzo Del Savio and Matteo Mameli, "Human domestication and the roles of human agency in human evolution, *History and philosophy cf the l.fe sciences* 42, no. 2 (2020): 21. For an overview of suitability toward domestication, see Diamond, *Guns Germs and Steel*, chapter 10; For a current overview, see Mary Ann Raghanti, "Domesticated species: It takes one to know one," *Proceedings cf the National Academy cf Sciences* 116, no. 29 (July 2019), 14401–3.
- 21 Duccio Bonavia, "The Domestication of Andean Camelids," Archeology in Latin America, (New York: Routledge, 1999), 130–47. For instance, dating domestication relies on changes in bone structure and concentration of animals, but it is exceedingly difficult to determine whether animals were domesticated in various places or if domesticated animals were moved into new sites. See Wheeler, "Evolution and Present Situation," 276.
- 22 Kent. V. Flannery, Joyce Marcus, Robert G. Reynolds, *The Flocks of the Wamani: A Study of Llama Herders on the Punas of Ayacucho, Peru* (New York: Academic Press, 1989), 25, 30, 37.
- 23 John V. Murra, "Herd and Herders in the Inca State," in *Man, Culture, Animals: The Role of Animals in Human Ecological Adjustments*, ed. Anthony Leeds and Andrew P. Vayda (Washington D.C: AAAS, 1965), 186.
- 24 Nicolas Goefert, "The llama and the deer: dietary and symbolic dualism in the central Andes," *Anthropozoologica* 45, no. 1 (2010): 25–45.
- 25 Cowie, Llama, 51. Quote in Cowie.
- 26 Patience A. Schell, *The Sociable Sciences: Darwin and His Contemporaries in Chile* (New York: Palgrave MacMillan, 2013).
- 27 Elizabeth Kolbert, *The Sixth Extinction An Unnatural History* (New York: Picador, 2015).

- 28 Juan Ignacio Molina, Ensayo sobre la historia natural de Chile (Santiago: Ediciones Maule 1810 [1987]), 289. He noted an additional Chilean species, the chilihueque.
- 29 Darwin, Voyage cf the Beagle, 156.
- 30 Juan Carlos Godoy, Evaluación De Los Recursos Naturales De La Argentina: Tomo Viii Fauna Silvestre Volumen 1 (Consejo Federal De Inversiones. Buenos Aires: Consejo Federal de Inversiones, 1963), 171.
- 31 Adam Warren, "From Natural History to Popular Remedy: Animals and Their Medicinal Applications among the Kallaway in Colonial Peru" in *Centering Animals in Latin American History*, ed. Martha Few and Zeb (Durham, NC: Duke University Press, 2013), 124–48.
- 32 Murra, "Herds and Herders," 195.
- 33 Daniel Gade, Nature and Culture in the Andes (Madison: University of Wisconsin Press, 1994).
- 34 Moore, "Early Domesticated Camelids in the Andes," 17. Mare's milk has interesting cultural appearances but is also rarely utilized in South America. See John Travis, "Trail of Mare's Milk Leads To First Tamed Horses," Science 322 (2008): 368.
- 35 Emily Wakild, "Saving the Vicuña: The Political, Biophysical, and Cultural History of Wild Animals Conservation in Peru, 1964–2000," *American Historical Review* 125, no. 1 (February 2020): 54–88.
- 36 Antonio Brack Egg, "La situación actual de la población de vicuñas y recomendaciones para su manejo," 1980, Centro de Datos de Conservación, Universidad Nacional Agraria-La Molina, Lima, Peru; Kai Otte and Rudolf Hofmann, "The Debate about the Vicuña Population in Pampa Galeras Reserve"; and S. K. Eltringham and W. J. Jordan, "The Vicuña of the Pampa Galeras National Reserve: The Conservation Issue," in *Problems in Management cf Locally Abundant Wild Mammals*, ed. Peter A. Jewell and Sidney Holt (New York: Academic Press, 1981), 259–90.
- 37 Cowie, Llama, 7.
- 38 P. T. Barnum, History cf Animals and Leading Curiosities and a guide to P. T. Barnum's Greatest cf All Shows and Colosseum cf Natural History and Art (Courier Company, 1879), 15.
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- 42 Javier Puente, "Livestock, Livelihood, and Agrarian Change in Andean Peru" Oxford Research Encyclopedia, 2018, https://doi.org/10.1093/acrefore/9780199366439.013.501
- 43 López de Llergo, "Las regiones naturales del Perú," 117.
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- 48 Brian Massumi, "The Supernormal Animal," in *The Nonhuman Turn*, ed. Richard Grusin (University of Wisconsin Press, 2015), 2; Hal Herzog, *Some We Love, Some We Hate, Some We Eat: Why It's So Hard to Think Straight About Animals* (New York: Harper Perennial, 2011), 149.
- 49 Cowie, Llama, 57.
- 50 Teofilo Altamirano Rua, "Pastores quechuas en el oeste norteamericano. América Indígena 51(2/3): 203–222; Alison Krogel, "Quechua Sheepherders on the Mountain Plains of Wyoming: The (In)hospitality of U.S. Guest Worker Programs," Journal cf Latin American and Caribbean Anthropology 15, no. 2 (2010): 261–88.
- 51 Brett Walker, "Animals and the Intimacy of History," in *The Oxford Handbook cf Environmental History*, ed. Andrew Isenberg (New York: Oxford University Press, 2014), 52–75; Sandra Swart, "But Where's the Bloody Horse?' Textuality and Corporeality in the "Animal Turn'," *Journal of Literary Studies* 23, no. 3 (2007), 271–92.
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