

**Beasts in the Garden City:
Animals, Humans and Settlement on Canada's West Coast**

By

Tim Cunningham

Bachelor of Arts, University of Victoria, 2017

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

MASTER OF ARTS

in the Departments of History and Cultural, Social, and Political Thought

© Tim Cunningham, 2021

University of Victoria

All rights reserved. This thesis may not be reproduced in whole or in part, by photocopy or other means, without the permission of the author.

Beasts in the Garden City:
Animals, Humans and Settlement on Canada's West Coast

By

Tim Cunningham

Bachelor of Arts, University of Victoria, 2017

Supervisory Committee:

Dr. Jason Colby, Supervisor
Department of History

Dr. John Lutz, Co-Supervisor
Department of History/CSPT

Abstract

This thesis examines the numerous roles that nonhumans (and especially livestock) played in the creation, maintenance, and reproduction of settler space in the colonial city of Victoria, British Columbia, and details the gradual processes by which city space paradoxically became designated as such through the selective removal of animal life over the turn of the twentieth century. I use extensive archival material, newspaper coverage, and secondary analysis to explore the varied roles nonhumans played in the establishment of settler society, and investigate the ways that animals were paradoxically fundamental and antithetical to modernizing and industrializing settler space across nearly a century of urban history. In the earliest days of colonial settlement, when Victoria was established as a fur-trading post and depot for the Hudson's Bay Company's Columbia Department, animals played crucial dispossessive roles in forcibly reorganizing Indigenous territory and establishing settler space, and were indeed vital to the broader British colonizing project. As the city experienced dramatic demographic growth and tightening urban space across two gold rushes in the mid-nineteenth century, Victoria's livestock faced increased scrutiny from legislators and citizens through the application of the common law category of "public nuisance." Urban subsistence strategies such as pig-keeping and free-range grazing began to encroach on settler property and offend nascent middle-class ratepayers as the city grew in population and density, causing a selective process of removal, even as some livestock (such as milk-producing cattle) remained vital to many of the city's households. Yet new understandings of disease transmission and sanitation sparked the gradual removal of domestic milch cows from Victoria's backyards and lots, as medical scrutiny began to view the city's dairy supply as a potential vector for the spread of the "White Plague," bovine tuberculosis. The resulting consolidation of privately-owned and co-operative dairies would largely spell the end to urban livestock husbandry in the city, relocating nonhuman bodies out of sight and out of mind. Meanwhile, the extension of a cattle frontier into the mainland Interior Plateau continued a process of dispossession instigated on Lekwungen territories in Victoria, inflicting devastation on grassland ecologies and Indigenous livelihoods in the arid interior of British Columbia, while the injection of outside capital and advances in transportation, retail and supply chain infrastructure placed consumers at a greater and greater spatial and conceptual divide from the animals with whom they had formerly shared their urban spaces.

Table of Contents

Supervisory Committee	ii
Abstract	iii
Table of Contents	iv
List of Figures	v
Chapter One: Beasts in the Garden (City)	1
Chapter Two: Beasts of Burden, Creatures of Empire	22
Chapter Three: “A Miserable Lot of Starved Brutes”	44
Chapter Four: “Death Lurks in the Milk Pail”	69
Chapter Five: “The Bunch Grass Levels Where the Cattle Graze”	94
Epilogue: “I Think the Prevailing Love for High Fences is Overdone”	118
Bibliography	123

List of Figures

Figure 1 – Horned Cattle. 1900.....	37
Figure 2 – Map of Victoria. 1863.	49
Figure 3 – Harry Stanley’s Butcher Shop. n.d.	53
Figure 4 – Christmas advertisement, Goodacre & Dooley. 1881.	95
Figure 4 – Biogeoclimatic zones of British Columbia. 2016.....	102

Beasts in the Garden (City):

Laying the Groundwork for Victoria's Animal History

On December 13, 1908, a telling anecdote appeared in Victoria's local newspaper, the *Daily British Colonist*. The author, in the course of commemorating the city's fiftieth anniversary, related the story of the August 4, 1862 "Act to Incorporate the City of Victoria." The legislation divided the growing urban space into three wards and sketched out rough town boundaries, to be consolidated by later meetings of the new mayor and an elected body of six councillors. Yet these very boundaries were soon put to the test by the decomposing body of an unfortunate animal. According to the reporter:

An old horse that had seen better days, tired, spiritless, and leg-sore, lay down one day in a lot where now runs Menzies Street, and died there. In a day or two the presence was evidenced by a disagreeable odor from the decaying body, and the sanitary inspector was appealed to. That officer repaired to the spot and by measurement ascertained that the dead animal lay six feet without the city lines. He declined to act. [...] The nuisance grew in volume and strength until at length the residents one night moved the remains across the line and deposited them within the city limits. The body was then buried by the city and no questions were asked.¹

Nearly a century and a half later, in May 2019, Victoria city councillor Ben Isitt put forward a motion to the Victoria municipal council to ban horse-drawn carriages on the streets of the city by 2023. Speaking with a reporter from *The Times Colonist*, Isitt pointed toward a

¹ "The Evolution of a Municipality." *The Daily Colonist*, December 13, 1908.

specific notion of modernity in his justification, remarking that his proposal was “signaling that the era of horse-drawn carriages on the street may be coming to a close.”² When pressed, Isitt opined that carriages were “an outdated mode of transportation in a dense urban environment,” citing animal welfare concerns, traffic safety, and sanitary problems in his decision to bring the motion to council.³

The contemporary controversy around animal-powered transport – and, by extension, around the presence of working animal bodies in Victoria’s “dense urban environment” – has an extensive pedigree in the history of the “Garden City.” From its earliest town ordinances, which banned “Swine and Goats from running at large in the Town of Victoria” on pain of death, a cross-pollinating class of landowners, planners, and sanitarians sought to gradually legislate animal bodies out of the city – even as livestock owners (and animals themselves) acted to frustrate clear delineations between animality and city space.⁴ Cows, goats, horses, pigs and dogs roamed through the city streets and alleys, living, dying, and coexisting – sometimes uneasily – with its human residents. In fact, Victoria’s animal residents played central roles in constructing, supplying and defining urban features of the burgeoning town, forming a dynamic assemblage that historian Scott Miltenberger has dubbed an “anthrozootic” city.⁵ Yet by the first decades of the twentieth century, they were largely gone, relegated north to rural municipalities further from the city, or across the Salish Sea and into the province’s consolidating ranching and dairy supply chains.

² Bill Cleverley, “Ban horse-drawn carriages on Victoria streets by 2023, Coun. Ben Isitt says.” *Times Colonist*, May 14, 2019.

³ Cleverley, “Ban horse-drawn carriages.”

⁴ “An Act to Prohibit Swine and Goats from running at large in the Town of Victoria; and to prohibit Goats from running at large in the settled Districts of Vancouver Island.” *The British Colonist*, January 23, 1862.

⁵ Scott Miltenberger, “Viewing the Anthrozootic City: Humans, Domesticated Animals, and the Making of Early Nineteenth-Century New York,” in *The Historical Animal*. Ed. Susan Nance (Syracuse: Syracuse University Press, 2015): 262.

Through an exploration of Victoria's early, multispecies streets, I seek to answer a series of nested questions related to this selective and gradual reorganization of livestock's place in relation to the city and its human population. In what ways did the creation and maintenance of modern, Anglo-Canadian urban space in Victoria rely on this measured exclusion of animal bodies? What were the conceptual and material mechanisms by which urban space was designated as such? *How*, exactly, did animals come to be 'out of place' in the streets of the city? My analytical lens, in the words of animal historian Susan Nance, is "radically interdisciplinary," and lies at the intersections of urban and environmental history, cultural geography, animal studies and critical theory. In drawing from diverse disciplines, I hope to complicate a conventionally understood history of the city centered around human actors, and instead taking into account the blended socio-cultural processes of constructing urban areas and sharing city space.⁶ My research exposes the uneasy and often transgressed cultural and spatial delineations that came with constructing human spaces in settler cities, and maps the relationships between the bodies of urban livestock and an expanding legal, bureaucratic and medical apparatus tasked with their regulation and eventual relocation.

Through the early days of Hudson's Bay Company settlement of Victoria, the bodies of imported livestock animals acted as potent signifiers of the colonial project. With the help of animal labor, settlers and HBC employees from the small fur-trading fort sought to replicate the agricultural practices, property regimes, and rigid social divisions of the British Isles in unfamiliar terrain.⁷ They often came into conflict with native predators such as wolves and 'panthers,' as well as with numerous and interconnected Indigenous communities that had

⁶ Susan Nance, in *The Historical Animal* (Syracuse: Syracuse University Press, 2015): 8.

⁷ Valerie Green, in *Above Stairs: Social Life in Upper Class Victoria, 1843-1918* (Victoria: Sono Nis Press, 1995): 13.

occupied the island since time immemorial. In the roughly twenty years between 1843 to 1862, the destruction of animal property, both by animal predation and human resistance, became a cause for conflict, and for an overwhelming spatial expansion of the colonizing project that was backed by threat of force. By 1862, as a population boom following the 1858 Fraser River gold rush exerted an array of logistical and infrastructural pressures, Victoria was incorporated.⁸ With incorporation came growing bureaucratic structures, new medical authorities, stratified social classes based on property ownership, and growing immigration from the United States, the Sandwich Islands (Hawaii) and China – as well as inevitable conflict over who (and what) belonged in the increasingly urban area. As the city expanded, becoming the capital of the new province of British Columbia in 1868 and joining Canadian Confederation in 1871, its population grew quickly, and questions of urban spatial regulation became more and more pressing.

As such, free-ranging livestock populations came under increasing scrutiny due to the threats and inconveniences they posed to the capital's social, cultural, and spatial fabric. While urban livestock animals remained vital sources of traction, haulage, food and milk in an industrializing and growing city, they posed major problems – and sometimes danger – to Victoria's urbanites. Their dung fell freely in the streets and contributed to the deep mire of manure and mud caked in gutters, a concern that dominated council proceedings for decades. During Victoria's dry, hot summers, animal droppings caked onto street surfaces before being pounded into a fine, throat-coating dust by horse's hooves, requiring contracted scavengers and, later, daily spraying from water trucks to keep air breathable. Cattle offloaded from sailing vessels and steamers in Victoria's Inner Harbor from San Francisco, Puget Sound, and Honolulu

⁸ "AN ACT TO INCORPORATE THE CITY OF VICTORIA." *The Daily British Colonist*, August 4, 1862.

were driven along city streets to slaughterhouses and butchers' shops, damaging property and sometimes biting or trampling pedestrians. In 1877, free-ranging (and garden-destroying) cows and pigs in the outskirts of the city caused one angry *Colonist* reader to write to the editor, condemning animal owners who allowed their livestock to graze on roadsides and along fences. "They are pitiful to be seen," thundered the subscriber, known only as "J.B.S.," "nothing but skin and bone, and if there was a society for the protection of animals, the owners of the stock would be fined, or the animals taken away from them."⁹

Dead animals, too, proved points of contention for city dwellers, as decomposing bodies left in vacant lots and on street corners raised the specter of miasmatic infection. Stenches emitting from slaughterhouses such as Lawrence Goodacre's caused controversy between neighbors and were subject to nuisance proceedings in city courts and assizes.¹⁰ By 1893, increasingly restrictive pound bylaws prohibited any "horse, ass, mule, ox, bull, cow, cattle, swine, hog, sheep, goat, goose, duck, or [unlicensed] dog" from "run[ning] at large, or trespass[ing] in the city, at any time."¹¹ Responding to numerous calls to restrict cattle drives through city streets and protect urbanites' property, the City Council amended the Streets Bylaw in 1908 to prohibit "unharnessed or unled horses, cattle, swine, or other like animals" from being led to barns, slaughterhouses or butchers' shops within city limits.¹² As bicycles, electric streetcars, and automobiles gradually began to supplant horse-drawn carriages in Victoria's streets through the first decades of the twentieth century, strict regulation of urban stables on the basis of sanitation and public health saw a gradual decline in urban equine populations, while

⁹ "The Starved Cow and Pig Nuisance." *The Daily British Colonist*, March 21, 1877.

¹⁰ "Objectionable Neighbors: The Case Against Mr. Lawrence Goodacre." *The Daily Colonist*, June 18, 1890.

¹¹ "Amendment to Pound Bylaw." *The Daily Colonist*, November 11, 1893.

¹² "PREVENT DRIVING OF CATTLE ON STREETS: City Council Enacts New Regulations to Govern Such Traffic." *The Daily Colonist*, February 19, 1908.

shifts in understandings of disease saw increased expert scrutiny placed on animals that supplied the city with meat and milk.¹³ Stables, piggeries and cowsheds were forced toward rural or peri-urban areas with less stringent sanitary bylaws if owners were unable to comply with restrictive ordinances, and dairy operations began to consolidate and integrate within supply chains and financial markets. By the first decades of the twentieth century, Victoria's streets had changed. Gleaming automobiles, electric streetcars and new grocery stores with cold storage technology began to replace the horse-drawn drays and open-air butchers' shops of just a few decades earlier, and, as the city grew and modernized, its laboring livestock found new homes out of sight, and out of mind. The relationships most Victorians would have with domestic livestock would, from then on, be consumptive rather than productive – limited to butcher paper-wrapped cuts of disarticulated muscle and bone they took home to cook, and the bottled milk delivered to their doorstep.

In recent years, scholarship on urban livestock, as part of a wider “animal turn” in the humanities and social sciences, has begun to flourish. Originating in a diverse variety of subdisciplines, including postcolonial studies, urban theory, environmental history, and critical posthumanism, scholars working with animal subjects have begun to embrace a conception of history that is, at its core, *more than human*. As Canadian historians Darcy Ingram, Joanna Dean, and Christabelle Sethna point out, this flood of scholarship has done much to destabilize the human as the sole subject of history, rendering a diverse historiography “that considers at various levels of complexity [animals'] eclectic contacts, exchanges, and cohabitation with human animals.”¹⁴ My research works within the framework of this nonhuman *zeitgeist*, taking stock of

¹³ “New Health Regulations.” *The Daily Colonist*, August 6, 1912.

¹⁴ Darcy Ingram, Christabelle Sethna, and Joanna Dean, in *Animal Metropolis: Histories of Human-Animal Relations in Urban Canada* (Calgary: University of Calgary Press, 2016): 2.

urban space- and place-making and highlighting the ways in which the bodies of livestock have been constitutive, both in their presence and their absence, of urban space in the history of one city.

My treatment of urban animals and their conceptual and physical placement hinges on space and spatiality. The act of exclusion or inclusion is most often a geographical one, and central theoretical underpinnings through the course of my research have correspondingly come from the domain of cultural geography. To cultural geographers like Chris Philo, the ways that different human communities “think, feel, and talk...about the animals nearby will shape their sociospatial practices toward these beings on an everyday basis, with important consequences for the extent to which the different animal species present are either included or excluded from common sites of human activity.”¹⁵ Cultural geographers working in animal studies emphasize the ways that animals are ‘placed’ by human societies “in their local material spaces,” as well as in “a host of imaginary, literary, psychological, and even virtual spaces.”¹⁶ Scholars such as Philo, Wilbert, Wolch, and Emel seek to understand the ways in which subaltern, nonhuman bodies become conceptually – and then geographically – ‘othered’ in this way, through a variety of historical contexts and spatial scales.

In many cases, human communities render animal bodies comprehensible, and thus controllable, through a series of categorizations. Based on biological, cultural, or material observations, these assigned categories translate directly into the process of emplacement in discrete spaces, by organizing the extent to which animals are allowed into or excluded from ‘human’ spaces. Relying as they do on a series of oppositions between categories, these

¹⁵ Chris Philo, in “Animals, geography, and the city: notes on inclusions and exclusions.” *Environment and Planning D: Society and Space* 13 (1995): 656.

¹⁶ Chris Philo and Chris Wilbert, in *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations* (London: Routledge, 2000): 5.

structuring binaries can have profound effects on the ways human populations conceptualize the world around them. Environmental historians, for example, have studied the ways that certain spaces are coded as “urban” or “rural,” “civilization” or “wilderness,” with attendant effects on how these lands are understood and subsequently used by human populations – whether it be for settlement, agriculture, or resource extraction.¹⁷

The process relies on what postcolonial theorist Edward Said calls “imaginative geographies,” in which popular perceptions of space in a given society are influenced through discourse as well as a variety of cultural artifacts (in the form of texts, images, et cetera) to demarcate and differentiate them. In the context of a growing city, these imaginative geographies play organizational roles as well, functioning to delineate certain spaces as the ‘right’ ones for certain human (and non-human) activities.¹⁸ Combining Said’s theoretical framework with that of Marxist thinker Antonio Gramsci, I treat the creation and maintenance of imagined geographies as a foundation for the establishment of cultural hegemony. To Gramsci, hegemony described the way in which certain dominant cultural narratives and mores become so engrained as to become second nature, and thus make up an ontology, a way of seeing and being in the world, that is more or less dictated by relations of power.¹⁹ Seattle-based historian Frederick Brown notes the effect of this combination of power and imagined geographies on animal bodies, writing that “people have sorted animals into categories and into places as a way of

¹⁷ See William Cronon, in *Nature’s Metropolis: Chicago and the Great West* (New York: W.W. Norton and Co., 1992). See also: Cronon, in “The Trouble with Wilderness: Or, Getting Back to the Wrong Nature.” *Environmental History* 1, no. 1 (January, 1996): 7-28.

¹⁸ Edward Said, “Imaginative Geography and Its Representations: Orientalizing the Oriental, in *Orientalism* (London: Penguin Books, 1978): 167.

¹⁹ Jean Comaroff and John Comaroff, excerpt from Introduction, *Of Revelation and Revolution: Christianity, Colonialism, and Consciousness Volume 1* (Chicago: University of Chicago Press, 1991): 19. See Antonio Gramsci, *Selections from the Prison Notebooks of Antonio Gramsci*. Quentin Hoare and Nowell Smith eds. (London: ElecBook, 1999): 526

asserting power over animals, over people, and over property.”²⁰ This process of sorting, and the ways in which it allows for Philo’s ‘emplacement’ of bodies as well as a consolidation of cultural authority in the hands of an ascendant settler middle class, played a central role in the history of Victoria’s animal regulation. A strictly anthropocentric idea of urban space came to be expressed by this propertied class through legal, social, and economic avenues, resulting in a gradual, yet profound alteration in urbanites’ understanding of their world – an “ontological split” that historian Peter Atkins has characterized as “the Great Separation.”²¹

Yet this categorizing power was never absolute. The process of animal classification and “sorting,” was always subject to resistance in Victoria’s history, and met a set of counter-discourses and degrees of pushback that Brown calls “blending.”²² This unruly and destabilizing process, he notes, often originated from “less powerful groups, including...the working class, people of color and immigrants,” especially as a growing class of urban residents attempted to forge a space structured around sanitation, the primacy of private property, and an idealized settler future.²³ In Victoria, cattle owners violently resisted pound keepers, immigrant communities kept animals for meat, milk, and eggs, and hog owners evaded the long arm of the law, staking their own normative claims for different, blended ideas of urbanity and urban space. Marxist sociologist and theorist Henri Lefebvre underscores the ways in which city space is itself a product of these “blended” relations, between both human and nonhuman actors. “Space cannot be adequately accounted for... by nature (climate, site),” he writes, “and implies, contains, and dissimulates social relationships.”²⁴ Furthermore, for Lefebvre, space is not “a

²⁰ Frederick Brown, in *The City is More than Human: An Animal History of Seattle* (Seattle: University of Washington Press, 2016): 6-7.

²¹ Peter Atkins, “Animal Wastes and Nuisances in Nineteenth-Century London,” in *Animal Cities: Beastly Urban Histories* (Farnham: Ashgate Publishing Co., 2012): 21.

²² Brown, *The City is More than Human*, 9.

²³ Ibid.

²⁴ Henri Lefebvre, in *La production de l'espace* tr. Donald Nicholson-Smith (Oxford: Blackwell, 1991): 82.

thing,” a static backdrop over which action can occur, “but is rather a set of relations between things.”²⁵ One cannot divorce city space from the social relations that take place within it, as they are importantly co-constitutive – “the city,” he writes, “is a space that is fashioned and shaped and invested by social activities.”²⁶ As we will see, the complex entanglement of classed narratives, interests, and power often resulted in the city itself becoming a discursive battleground, wherein competing interests and visions of urban space resulted in an unsettled amalgamation of conflicting relations in constant flux.

A cadre of historians working in the growing field of animal studies have begun to direct their attention toward these complex negotiations of space in the transition to urban modernity in the West. Several have pointed toward the accompanying conceptualization and reconceptualization of animals’ place in the lives of urban citizens. Virginia Anderson’s now-classic monograph *Creatures of Empire*, for example, highlights the foundational role of livestock in the process of settler colonization in New England and the Chesapeake. Anderson points toward the ways that settlers’ animals instigated conflict with First Nations groups, played material roles in westward expansion, and performed important symbolic functions for settlers laboring to ‘unsettle’ Indigenous territorial claims and impose Anglo-European space in unfamiliar environments.²⁷ Joel Tarr and Clay Mcshane have similarly tracked the history of the metropolitan horse as “living machine,” and as an indispensable element in the North American settler urbanizing project. Both as a symbol of progress and as a “flexible, evolving technology,” they contend, the horse was ubiquitous in growing North American cities, and played an

²⁵ Lefebvre, *La production de l’espace*, 83.

²⁶ *Ibid.*, 73. Lefebvre places special emphasis on the power of property relations in sculpting the social character of cities.

²⁷ Virginia DeJohn Anderson, in *Creatures of Empire: How Domestic Animals Transformed Early America* (New York: Oxford University Press, 2004): 11.

important role in telling city residents where (and what) they were.²⁸ The symbolic role of animal reproduction and ‘increase,’ as extensions of the colonizing project, certainly loom large in Victoria’s early years, while urban horses and milch cattle similarly became a potent marker of progress through the city’s rapid industrialization and beyond.

Harriet Ritvo’s 1987 monograph, *The Animal Estate*, points toward the integral role that animals and animal-related discourses played in understandings of class hierarchy, social order, and imperial citizenship in Victorian England. Ranging from stock-breeding to animal display to popular understandings of rabies, Ritvo draws links between discourse about non-humans and the operations of power in the metropolitan core of the British Empire, connecting the ways that Victorians talked about and represented animals to the creation and maintenance of hegemonic boundaries between social classes.²⁹ Gabriel Rosenberg has similarly tied livestock bodies to the workings of power, pointing toward turn-of-the-century anxieties over ‘race suicide’ and whiteness in the American cultural milieu and the application of this model to the breeding of hogs for slaughter.³⁰ In charting the shifting roles that livestock played, these scholars underline the key representational function that nonhumans played in human power structures. Some of Victoria’s earliest nuisance reports, for example, condemned the “number of pigs in the gully, between Johnson and Cormorant [streets], which were said to belong to Chinamen who were there resident.”³¹ The nuisance jury further asserted that “the effluvia [was] sufficient to cause disease.”³² Here the jury uses the free-range urban livestock husbandry practices of Chinese

²⁸ Clay McShane and Joel A. Tarr. *The Horse in the City: Living Machines in the Nineteenth Century* (Baltimore: Johns Hopkins University Press, 2007): 14.

²⁹ Harriet Ritvo, *The Animal Estate: The English and Other Creatures in the Victorian Age*. (Cambridge: Harvard University Press, 1987): 4-5.

³⁰ Gabriel N. Rosenberg, “A Race Suicide Among the Hogs: The Biopolitics of Pork in the United States, 1865-1930.” *American Quarterly* 68, no. 1 (March 2016): 51.

³¹ “NUISANCES.” *The British Colonist*, September 5, 1862.

³² *Ibid.*

immigrants to reinforce broad conceptions of immigrant difference and lack of sanitation. This sort of rhetoric was widespread in Victoria's past, and emphasized the central role of animals in representing human groups' social power (or lack thereof).

Along these lines, other historians have focused on the socio-economic roles of urban free-range livestock in the livelihoods of lower-class and racialized urban inhabitants. For example, Canadian historian Bettina Bradbury emphasizes that urban proletarians' ability to raise pigs and poultry in early Montréal allowed them to supplement their family's intake and income, and provided important non-market access to food.³³ Sean Kheraj similarly points toward the significant possibilities for home production of meat, milk, and eggs for working-class urban families.³⁴ In *Taming Manhattan: Environmental Battles in the Antebellum City*, Catherine McNeur describes free-range urban livestock husbandry and dairying as tools of economic independence, and important outliers (and thus targets for authorities) in the process of urban capital interpellation and sanitary reform.³⁵ The ways that these historians treat subsistence husbandry and home food production point toward the multifaceted roles that livestock animals played in the lives of the urban underclass, providing labor, companionship, and food – even as they rendered both human and animal vulnerable to a potent combination of legal action and social censure.

My research reveals that these subsistence husbandry strategies, vital as they may have been in the early days of Victoria's settlement, were some of the first to be targeted by municipal

³³ Bettina Bradbury, "Pigs, Cows, and Boarders: Non-Wage Forms of Survival Among Montreal Families, 1861-91." *Labour/Le Travail* 14 (1984): 12. See also Bradbury, *Working Families: Age, Gender, and Daily Survival in Industrializing Montreal* (1993) for an expanded discussion of non-wage forms of subsistence husbandry in Canada's early industrializing cities.

³⁴ Sean Kheraj, in "Urban Environments and the Animal Nuisance: Domestic Livestock Regulation in Nineteenth-Century Canadian Cities." *Urban History Review* 44, no. 1-2 (Spring 2016): 46.

³⁵ Catherine McNeur, in *Taming Manhattan: Environmental Battles in the Antebellum City* (Cambridge: Harvard University Press, 2014): 3. See also: McNeur, "The 'Swinish Multitude': Controversies over Hogs in Antebellum New York City." *Journal of Urban History* 37, no. 5 (2011): 641.

authorities. Livestock husbandry, slaughtering and processing establishments were increasingly relegated to peri-urban and rural areas outside the city limits in the early years of urbanization, and were continually displaced as these city limits expanded – a process that historians Catherine Brinkley and Domenic Vitiello have explored in their analysis of early professional urban planning in American cities.³⁶

As animal bodies were ‘sorted’ and emplaced, Victoria began to take on the characteristics of a modern city – a spatial arrangement that urban historians have treated as an “ecological disturbance regime,” and an “urban metabolism.”³⁷ These scholars highlight the necessity of inputs from surrounding areas and the inevitability of waste as an output in the establishment of dense urban areas. Some have explored the role of livestock as inputs to urban metabolic systems, and tracked the complex relationships that complicate a conventionally-understood “city/country” binary. William Cronon’s *Nature’s Metropolis*, for example, tracks the flow of agricultural commodities and animal capital from the hinterlands of the Midwest into Chicago through the mid-nineteenth century, and draws attention to the ways that urban markets and ‘natural’ systems are intricately linked. As an urban system grows, it instigates changes in the surrounding land – hinterland and city space, Cronon emphasizes, develop in lockstep. Joel A. Tarr applies the biological concept of metabolism to his study of industrial Pittsburgh through the turn of the century and beyond, writing that “cities...consume their environments and cannot survive unless they reach a point of equilibrium with their sites and their hinterlands in regard to the consumption of air, water, and land resources.”³⁸ Negotiations of water supply, waste

³⁶ Catherine Brinkley and Domenic Vitiello. “From Farm to Nuisance: Animal Agriculture and the Rise of Planning Regulation.” *Journal of Planning History* 13, no. 2 (May 2014)

³⁷ See Kheraj, “The Great Epizootic of 1872-3: Networks of Animal Disease in North American Urban Environments.” *Environmental History* 23, no. 3 (July 2018): 497, and Joel A. Tarr, “The Metabolism of the Industrial City.” *Journal of Urban History* 28, no. 5 (July, 2002): 512.

³⁸ Tarr, “The Metabolism of the Industrial City,” 511.

management, and food inputs into Victoria's urban system dominated the city's early years, and livestock animals certainly played central roles in arguments around nutrition, safety, and sanitation, even as they spread further into Victoria's continental hinterland.

Martin Melosi's *The Sanitary City* applies this systems-level framework to the history of waste disposal in three American cities, drawing connections between environmental services and popular understandings of disease and public health. "Sanitary services," he writes, "are linked inextricably to prevailing public health and ecological theories and practices."³⁹ Melosi explores the dominant understanding of miasma as source of infection, arguing that hegemonic conceptions of disease had profound effects on the ways urban conditions were addressed by city planners and sanitarians. Cataloguing the fundamental impact brought by the 1880s-era bacteriological revolution on sanitary services, Melosi offers a comprehensive framework that I extend to understand the changing place of animal bodies within the schema of new ideas around disease and sanitation. Likewise, Melanie Kiechle draws connections between wider social understandings of miasma and J. Douglas Porteous' "smellscapes," exploring the ways that nineteenth-century city dwellers often constructed imaginative geographies of urban spaces premised on avoiding stench and other miasmas thought to endanger their health – avoiding, for example, urban stables or slaughterhouses.⁴⁰ Sean Kheraj's work on "The Great Epizootic of 1872" presents a case study of disease and nonhuman bodies in Canada and the United States, highlighting perceptions of disease transmission in the days of miasmatic theory, and demonstrating the transnational scope and various urban impacts of animal-borne infection.⁴¹

³⁹ Martin Melosi, *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present*. (Baltimore: Johns Hopkins University Press, 1999): 1.

⁴⁰ Melanie Kiechle, "Navigating by Nose: Fresh Air, Stench Nuisance, and the Urban Environment, 1840-1880." *Journal of Urban History* 42, no. 4 (2016): 753. J. Douglas Porteous first pointed toward "smellscapes" or "olfactory geographies" as structuring factors in human urban geographies in Porteous, "Smellscape." *Progress in Physical Geography: Earth and Environment* 9, no. 3 (September 1985): 359-60.

⁴¹ Kheraj, "The Great Epizootic of 1872-3: Networks of Animal Disease in Urban Environments," 496.

Contending that the Great Epizootic (a particularly virulent strain of equine influenza) was a result of North American cities' "ecological conditions and networked disease pool," Kheraj points to interconnections across urban metabolisms in ways that prove productive in thinking livestock in the city through the lens of epidemiology.⁴²

Kheraj has also extensively examined the material and legal mechanisms of exclusion and inclusion that made up urban place-making and configurations of space in eastern and central Canadian cities, focusing his analysis on the population centers of Montreal, Toronto, and Winnipeg. He treats the regulation of livestock in urban spaces as a means to combat "environmental challenges that were characteristic of urbanization."⁴³ These challenges most often revolved around a complex and shifting assortment of interests, ranging from concerns around trespass and property as articulated by landowners, to the protection of animal investment by domestic livestock owners, to the biopolitical concerns of sanitary reformers and public health officials.⁴⁴ Pointing toward the immense social power of nuisance legislation and the rise of the pound as a potent institution of spatial enforcement, Kheraj underscores the variety of mechanisms that converged on livestock animals to "maintain (and attempt to control) [their place] in the urban environment."⁴⁵

Yet a degree of Kheraj's approach hinges on a relatively static understanding of "biotic homogenization," asserting that a variety of stakeholders across Canadian urban centers confronted a series of common issues and dealt with them in similar ways. Underlying this

⁴² Kheraj, "The Great Epizootic of 1872-3," 498. Harriet Ritvo has also touched the effects of urban environments and high population densities on animal disease pools in Ritvo, "Animal Planet." *Environmental History* 9, no. 2 (April 2004): 212. Epizootics like Kheraj's 1872 influenza outbreak expose the reliance of anthrozootic economic systems on the bodies of healthy animals – although these epizootics posed no danger to human health, they importantly interfered with human profit margins.

⁴³ Kheraj, in "Urban Environments and the Animal Nuisance," 45.

⁴⁴ *Ibid.*, 46.

⁴⁵ *Ibid.*, 48.

framework is an understanding of urban environments that treats them as uniform ecological disturbance regimes – Canadian cities, in Kheraj’s understanding, share the same essential characteristics that make their animal histories relatively convergent. This methodology, however, seems to simplify (and even essentialize) complex and contingent local conditions and differences in Anglo-Canadian settlement patterns. It demonstrates a need for nuanced microhistories, especially in a relatively young (and rapidly urbanized) Canadian Pacific seaboard, that take into account differences in eco-cultural networks and variations in patterns of colonization and urbanization across the nation’s vast area.⁴⁶

Here, Jason Hribal’s work on animals, agency and class provides a possible means to complicate the clear lines of “biotic homogenization.” Taking his lead from Marxist historians like E.P. Thompson, Hribal advocates a history “from below,” and entrenching class and agency as central trajectories of urban animality.⁴⁷ By applying an animal lens that looks beyond top-down dominance paradigms, elements of Hribal’s approach allow for a view of urban animal actors that is more closely attentive to their diverse social configurations and possibilities for resistance and transgression. In particular, following economic geographer David Harvey, Hribal underscores the reproductive nature of animal bodies in the city, and their connections with the history of urban spaces as potent sites of capital accumulation.⁴⁸ Yet Hribal’s approach, when taken to its logical end, tends to apply class categories to animal bodies in a way that smacks of anthropocentrism; animal bodies, in this framework, are more than simply accessories to their

⁴⁶ For British imperial “eco-cultural networks” and the formal and informal systems of imperial thought that influenced ecological conditions in colonies, see James Beattie, Edward Melillo, and Emily O’Gorman (eds). *Eco-Cultural Networks and the British Empire: New Views on Environmental History* (Bloomsbury: London & New York, 2015)

⁴⁷ Jason C. Hribal, in “Animals, agency, and class: writing the history of animals from below.” *Human Ecology Review* 14, no. 1 (May 2007): 102.

⁴⁸ *Ibid.*, 103. For Harvey’s understanding of the city as an accumulation of surplus with a tendency toward crisis, and of the (re)productive labor required to maintain such an arrangement, see David Harvey, “The Right to the City.” *New Left Review* 53 (September/October 2008): 23-40.

human counterparts. Further, in referencing anthropologist James C. Scott's 'checklist' of agentive resistance, Hribal measures degrees of animal agency with reference to human metrics.⁴⁹ A crucial problem facing animal historians is this tendency toward assigning human characteristics and intentionality to animal subjects, in a way that attributes similarly human conceptions of agency. Following historian Joshua Specht, I treat the complicated question of animal agency as one of configuration, attempting to answer his call to develop "a more nuanced understanding of how autonomous action operates within and is constrained by surrounding structures."⁵⁰ This relational understanding of agency, championed by actor-network theorists like Bruno Latour as well as thinkers like Lefebvre and Harvey, allows historians to think beyond traditional understandings of agency as intentionality and forethought, and allows for its extension outside the sphere of human action and reaction.⁵¹

By integrating elements of Specht's, Hribal's and Kheraj's approaches, among many others, my contribution is to provide analysis of livestock regulation, containment, and relocation at a variety of different scales, ranging from the level of transnational scientific developments to personal correspondence. In so doing, I seek to better understand the ways in which animal bodies were classified and 'placed' – or deemed 'out of place' – in the dynamic social ecology of an explicitly Anglo-Canadian urban settler space. From cattle drives and butcher shops to the importation and application of the germ theory championed by German bacteriologist Robert Koch, and from the irate letters to the editor penned by Victoria financial leader Henry H. Rhodes to Emily Carr's reminisces of her animal-filled childhood in the city, livestock in the

⁴⁹ Ibid. For James C. Scott's model of underclass resistance to structures of domination, see J.C. Scott, *Weapons of the Weak: Everyday Forms of Peasant Resistance* (New Haven: Yale University Press, 1987).

⁵⁰ Joshua Specht, in "Animal History after its Triumph: Unexpected Animals, Evolutionary Approaches, and the Animal Lens." *History Compass* 14, no. 7 (2016): 332.

⁵¹ For a comprehensive outline of actor-network theory and its possibilities for thinking agency outside of human intentionality, see Latour, *Reassembling the Social: An Introduction to Actor-Network Theory* (Oxford: Oxford University Press, 2005).

“Garden City,” far from peripheral characters, were indeed central concerns in the lives of the city’s inhabitants.

Chapter One addresses the early colonial history of Victoria, exploring the ways in which animal bodies were understood and employed by Hudson’s Bay Company fur-trading and colonization authorities like Roderick Finlayson and James Douglas to demarcate where and what they were in a land that was already extensively cultivated and propertied. As a distinctly English conception of colonial agriculture and social class, promoted by colonial theorist Edward Gibbons Wakefield, was forcibly inscribed on land that had been cultivated for millennia, livestock animals came to embody settler futurity and the colonizing project.⁵² As settlers struggled to impose their understanding of ‘improvement’ on Indigenous territory, nonhuman bodies became sites of both conflict and signification, and played important roles in the construction and maintenance of a English colonial conception of progress and settlement. The first two decades of Anglo-European colonization also saw an ascendant elite class begin to form, as families linked to the HBC and Puget Sound Agricultural Company accrued wealth and became political and economic leaders of the city for decades to come.

Chapter Two explores the 1862 Incorporation of the City of Victoria, addressing the creation of the municipal council, demographic urban growth and crowding, and competing visions of the species that would be allowed to share the nascent urban space. The city’s founding ordinances explicitly banned goats and swine from city limits, as well as slaughterhouses, tanneries, and other “offensive trade[s] or occupation[s],” and was quickly followed by the institution of the pound to police urban areas and enforce class-bound visions of suitable animal husbandry.⁵³ The early town councils propounded a specific vision of future-

⁵² Richard Mackie, in “The Colonization of Vancouver Island, 1849-1858,” *BC Studies* 96 (Winter 1992): 8.

⁵³ “CITY ORDINANCES.” *The Daily British Colonist*, September 9, 1862.

oriented, modern colonial space, I argue, but was by no means averse to the presence of select animal bodies in the growing urban area, as long as they were under proper control. Cows, for instance, ranged freely in the city's outskirts and roadsides through the 1870s and 1880s, before pressure from citizens and the rise of city health authorities instigated more intensive regulation in the early 1890s. Through the chapter, I illustrate the degree to which livestock animals were 'sorted' by municipal authorities in order to consolidate a geography of human space and protect ratepayers' property, even as the 'city fathers' sought to balance subsistence and modernity, livelihoods and property.

Chapter Three turns to the influence of the sanitary movement and the paradigm shift to new ideas of bacteriology on the animal residents of Victoria's barns and stables over the turn of the twentieth century. As a gradual shift took place in the ways that disease was understood and combatted, from the environmental causation of miasma to the individual, preventive bacteriological model, new sanitary authorities were vested with power to control urban environments. These public health professionals represented expert, indisputable scientific authority, and as such often went unquestioned, forming a new hegemonic class with considerable influence over animal bodies and urban supply chains. Focusing on the pervasive anxiety that municipal medical officers, provincial authorities, and Dominion experts expressed with regards to bovine tuberculosis and the sanitary conditions of the city's dairies, I argue that new conceptions of disease exerted new pressures on urban livestock owners, eventually driving milch cattle away from the city and toward centralized or co-operative dairying outfits. As such, sanitary legislation and enforcement operated as a *de facto* zoning device, funneling 'dangerous' industries into the hands of professional processors and out of the control of local producers,

with attendant effects on dairy cow populations near or within the city, and on possibilities of extra-market food production for Victoria's working class.

As the dispossession of Indigenous territories and settler colonization of the province intensified on the mainland in the wake of two major gold rushes, large-scale cattle ranching came to British Columbia from south of the international border. With enormous cattle drives bringing thousands of animals into the region from the 1860s, a domestic cattle frontier expanded through the arid benchlands and river valleys of the Southern Interior Plateau, supplying coastal markets while wreaking its own brand of destruction on ecologies, territories and bodies in the ancestral Indigenous territories of BC's interior. Focusing on the growth of industrial beef cattle operations like the Douglas Lake Cattle Company (still the largest ranch in Canada) and the Gang Ranch, Chapter Four explores the 'making of a hinterland' that placed cattle far from consumers and naturalized distant supply chains across the province. As retail methods shifted from open-air butchers' shops to cold storage and plate glass display cases, the provenance of the city's meat became further obscured, as the industrialized production of animal flesh transformed cow into commodity and cattle into capital.

This series of case studies draws upon existing literature from historians of the British Empire and its eco-cultural networks, of animal regulation, sanitation, urban space, class, power and more, in order to provide a nuanced understanding of the changing place of livestock in the Canadian colonial context and beyond. It contributes to a flourishing literature in the growing field of animal studies, and connects wider social arrangements and cultural networks to urban planning, supply chains, and spatial organization, in ways that provide a new and fascinating way to understand the contested formation of colonial urban space itself. Victoria, I ultimately argue, is a city constituted by its historical exclusions as much as its inclusions, its 'sorting' as

well as its 'blending,' and by a shifting vision of urban space that gradually transformed the city from a space of production, to one of consumption.

Beasts of Burden, Creatures of Empire:

Property, Conflict and Nonhuman Labor at Fort Victoria, 1843-1855

In 1844, Roderick Finlayson, the new chief trader at a recently established Fort Victoria, faced a serious problem. Several of the Hudson's Bay Company's cattle had gone missing from the growing herd grazing outside the stockades of the fort, and Finlayson was convinced that Quw'utsun hunters encamped near the neighboring Lekwungen winter village had slaughtered them for food. Upon questioning the Lekwungen "head chief," *siem* Chee-al-thluk, Finlayson was met with defiance, and after the fur trader left, the chief "went away in a rage, [and] assembled some Cowichan Indians to his village."¹ Shortly afterwards, a "shower of bullets" began to pepper the walls of the fort, as a "great crowd" assembled, "threatening death and devastation to all whites."² The siege lasted two days. Finlayson called all available company employees to man the two heavily armed bastions at the corners of the fort, and directed his "half-breed" interpreter to feign defection and warn the besiegers that the HBC men were planning to fire on a Lekwungen *siem*'s winter home.³ Once Finlayson received news that it was unoccupied, he "fired a nine-pounder with grape[shot] in, and pointed the gun to the lodge, which flew in the air in splinters like a bombshell."⁴ Chee-al-thluk arrived at the walls of the fort

¹ Roderick Finlayson, *Biography of Roderick Finlayson* (Victoria, 1891): 11. While Finlayson's memoir and his Fort Victoria Journal denote a basic misunderstanding of Lekwungen familial and political structures, the "chief" mentioned is most likely *siem* Chee-al-thluk, who was referred to as "head chief" or "king" through early colonial records. *Siems*, translated as "heads of household," were patriarchs of extended, loosely amalgamated Lekwungen families that "controlled the wealth of the household and managed the major items of property as well as ceremonial privileges." For a detailed description of Lekwungen social structures, see John Lutz, *Makúk: A New History of Aboriginal-White Relations* (Vancouver, UBC Press: 2009): 61-62.

² Ibid.

³ Ibid.

⁴ Ibid., 12.

shortly afterwards, and was met by Finlayson, who, by his own account, had “assum[ed] a warlike attitude.” The chief trader made it clear that unless “the cattle killed were paid for,” he would “demolish all their huts and drive them from the place.”⁵ The *siem* quickly paid for the fort’s bovine property in furs. “Secure in their fort,” reflects historian John Lutz, “the fur traders had introduced the Lekwungen to the new regime of property relations.”⁶

Eight years later, two Lekwungen hunters were suspected of slaughtering “several head of neat cattle and sheep, belonging to a Settler.”⁷ One was apprehended quickly, while the other took refuge in the “principal Songies Village near Victoria.”⁸ Governor James Douglas sent ten men and a constable to retrieve the unfortunate perpetrator, writing later that he “could not allow Her Majesty's authority to be thus treated.”⁹ John Sebastian Helmcken, the fort doctor, was given command of one of the boats in the landing party, and was met on the opposite shore of the Inner Harbor with “yells, shouts, guns, axes, spears, and so forth.”¹⁰ Helmcken estimated the defensive forces at “five hundred men” - an overwhelming force that made short work of the colonists. “Instead of the men leaping out of the boat,” Helmcken later wrote, “the Indians rushed into the water, and took the muskets from the men!”¹¹ The landing party retreated to the fort in disarray, and Douglas quickly ordered the Hudson's Bay Company’s paddlewheel steamer *Beaver* – a vessel that historian Cole Harris has characterized as a “mobile fort” – to be positioned just offshore with “arms on display.”¹² The ship’s appearance caused great panic in the Lekwungen

⁵ Finlayson, *Biography of Roderick Finlayson*, 12.

⁶ John S. Lutz, *Makúk: A New History of Aboriginal-White Relations* (Vancouver: UBC Press, 2009): 72.

⁷ Douglas to Earl Grey, December 1852, National Archives of the UK, CO 305/3. *The Colonial Despatches of Vancouver Island and British Columbia 1846-1871*. Ed. James Hendrickson and the Colonial Despatches Project. Victoria: University of Victoria.

⁸ *Ibid.*

⁹ *Ibid.*

¹⁰ J.S. Helmcken, “In the Early Fifties.” *The Victoria Daily Colonist*, 1 January 1889.

¹¹ *Ibid.*

¹² Cole Harris, “Strategies of Power in the Cordilleran Fur Trade,” in *The Resettlement of British Columbia: Essays on Colonialism and Geographical Change* (Vancouver: UBC Press, 1997): 39. For a further discussion of the

community. The following day, “some chiefs appeared with a flag of truce,” paid for the cattle, and returned the confiscated muskets. “This, I think” Helmcken writes, “was the last serious squabble with these people.”¹³

When Hudson’s Bay Company settlers came to the southeast coast of Vancouver Island in 1843 to establish a fur-trading foothold and depot, they brought their livestock with them. First oxen and horses were shipped aboard company vessels, then pigs and sheep. These nonhumans played multiple, crucial roles in the lives and livelihoods of these franchise colonizers, as well as in the wider project of colonial land dispossession and the making of settler space. Nonhumans’ grazing needs partly dictated the selection of the site for the fort in the first place, while their labor helped to construct and sustain colonial institutions, and their extensive wandering began to distinguish the land surrounding it as unmistakably British, and subject to a settler property regime rooted in colonial common law. In their many roles, livestock materially and symbolically extended the process of spatial reorganization inherent in the colonizing project, forcibly reconfiguring the land and violently carving out settler space. Through fomenting conflict and negotiation between Lekwungen residents and newcomers in the course of their extensive wandering in search of forage, physically aiding in construction and ploughing to assert Lockean rights to fee-simple property based on understandings of ‘improvement,’ and providing reproductive labor, in the form of flesh and by-products, that connected Victoria to imperial trade networks and literally fed empire, nonhumans played central roles in the deterritorialization, settlement and respatialization of what would become Victoria’s urban space.

Animals were key agents in the strategic establishment of settler presence on North

HBC’s militarized standoffs with Lekwungen groups around cattle-killing, see Stephen Royle, *Company, Crown and Colony: The Hudson’s Bay Company and Territorial Endeavour in Western Canada* (London: I.B. Tauris & Co, 2011): 87.

¹³ Helmcken, “In the Early Fifties.”

America's west coast from the earliest European incursions into the region's Indigenous space. As historian John Galbraith notes, the establishment of agricultural settlements and 'improvement' of 'unused' space was an important tactic in asserting geopolitical dominion over disputed areas.¹⁴ Much of the momentum behind this reasoning came from philosopher John Locke's classical liberal understandings of natural rights to life, liberty and property. For Locke, property was created out of a commons-based 'state of nature' by virtue of labor or "improvement."¹⁵ Thus, through agriculture, pastoralism or enclosure the laboring party could assert private property rights by way of quantifiable 'value' added: "the grass my horse has bit, the turfs my servant has cut, and the ore I have digged in any place, where I have a right to them in common with others," Locke wrote in his *Second Treatise*, "become my property... The labour that was mine, removing them out of that common state that they were in, hath fixed my property in them."¹⁶ Further codified by William Blackstone's influential late eighteenth-century *Commentaries on the Laws of England*, the assertion of fee-simple property rights through labor-based improvement became a primary means by which to assert territorial dominion over Indigenous lands through the global spread of British colonialism, and it was repeatedly called upon in the northwest Pacific coast to lend legal credence to tenuous settler land claims.¹⁷

As American settlers flooded into the Oregon Territory through the 1840s, the 'improvement' of land that came with farming and stock-raising gave weight to HBC territorial claims around the Columbia River and Puget Sound. To strengthen these claims, as well as to support settlement and supply maritime commerce in a growing sphere of British, Russian and

¹⁴ John S. Galbraith, in "The Early History of the Puget's Sound Agricultural Company, 1838-1843." *Oregon Historical Quarterly* 55, no. 3 (September 1954): 240-241.

¹⁵ John Locke, *The Second Treatise of Government*. Richard Cox ed. (Wheeling: Harlan Davidson, 1982): 12.

¹⁶ *Ibid.*, 19.

¹⁷ Cole Harris, in "How Did Colonialism Dispossess? Comments from an Edge of Empire." *Annals of the Association of American Geographers* 94, no. 1 (March 2004): 177.

American influence, several influential HBC shareholders established a “satellite enterprise,” the Puget Sound Agricultural Company (PSAC), in 1838.¹⁸ Over the next two years, HBC farms across present-day Washington State were transferred to PSAC to provision the extensive network of HBC fur-trading forts scattered through the Columbia Department, and to supply wool, beef, hides, butter and tallow for an 1839 trade contract with Russian-American Company fur depots in New Archangel (present-day Sitka, Alaska).¹⁹ As American overlanders pressed ever closer to the large PSAC stock-raising establishment at Nisqually through the early 1840s, however, the valuable herds of sheep and cattle grazing in the surrounding areas were placed in serious jeopardy: historian James Gibson notes that “[American] squatters not only seized the Company’s land, but also tracked and shot its livestock.”²⁰

As such, HBC and PSAC officials began a search for new grounds to establish agricultural settlements north of Puget Sound, in order to avoid losses of property and investment if Oregon Territory fell to the Americans, and to stake a territorial claim to the north in case of an unfavorable boundary settlement. The Treaty of Washington in 1846 proved these concerns prescient. That year, British envoy Richard Pakenham agreed to cede all territory south of the 49th parallel to the United States, and while PSAC establishments were still entitled to ‘their’ improved properties, its London-based directors knew it was only a matter of time before they too would be swallowed by the relentless tide of American expansion. They needed to relocate their farms – and associated animal capital – quickly.

¹⁸ Galbraith, “The Early History of the Puget’s Sound Agricultural Company,” 242.

¹⁹ James R. Gibson, in *Farming the Frontier: The Agricultural Opening of the Oregon Country, 1786-1846* (Vancouver: UBC Press, 1985): 82. New Archangel is now known as Sitka, Alaska. The Columbia Department constituted an expansive network of forts in the fur-bearing land of what is now the American Pacific Northwest and Western Canada, extending from the Yukon River south to the Colorado River.

²⁰Gibson, *Farming the Frontier*, 119. Nisqually, near present-day Dupont, WA, was the primary site of PSAC stock-raising, while Cowlitz Farm (near Toledo, WA) was responsible for the majority of the Company’s vegetable cultivation. Gibson estimates numbers of cattle and sheep at Nisqually at 4,194 sheep and 924 cattle in 1842, growing to 8,833 and 2,436 respectively by 1845.

They found the answer to their territorial conundrum in a burgeoning fur trading depot on the southern tip of Vancouver Island: the young Fort Victoria. General maritime surveys of the island through the late 1830s had found little in the way of suitable agricultural land for stock raising or large-scale farming in its foggy northern reaches. Yet according to then-assistant to the chief factor at Fort Vancouver, James Douglas, a “perfect Eden” lay to the south.²¹ Surveying the area more rigorously in 1842, Douglas wrote that “at [Victoria] there is a range of plains nearly 6 miles square containing a great extent of valuable tillage and pasture land equally well adapted for the plough or for feeding stock.”²² This was the “advantage and distinguishing feature” of the area and led him to recommend the site for settlement “in preference to all other met with on the Island.”²³ PSAC directors, encouraged by the news of arable land on the island, reserved plots there in 1848 with a view to relocating the combined stock holdings of the PSAC and HBC north across the Salish Sea. Their convictions were further strengthened in 1849, when after several years of debate in London, Vancouver Island became an official British colony as well as the primary depot for the HBC fur trade. With company administrator and new colonial governor Douglas tasked with encouraging “systematic colonization” after 1849, livestock would play outsized roles in establishing an indisputable claim to the island, with the aid of animal and human improvement (via tillage, pasturage, and settlement), and in the name of the empire.²⁴

Yet Douglas’ “perfect Eden” was not “dropped from the clouds into its present position,” as the administrator claimed in correspondence with Joseph James Hargrave, a close friend and

²¹ George Parkin de Twenebroker Glazebrook ed. *The Hargrave Correspondence, 1821-1843* (Toronto: The Champlain Society, 1938): 420.

²² James Douglas, reprinted in W.K. Lamb, “The Founding of Fort Victoria” *British Columbia Historical Quarterly* 7, no. 2 (April 1943): 83.

²³ *Ibid.*

²⁴ Brian Charles Coyle, “The Puget’s Sound Agricultural Company on Vancouver Island, 1847-1857.” (MA Thesis: Simon Fraser University, 1977): 7.

fellow HBC fur trader.²⁵ What the governor failed to realize was that the land around present-day Victoria had been sculpted by human-animal interactions for thousands of years.²⁶ The North Straits Salish-speaking Lekwungen peoples of southern Vancouver Island had long used fire to control forest incursion and to expand hunting and farming grounds, burning back undergrowth at the end of each season to discourage fern and sapling growth and generate grazing habitat for the island's deer.²⁷ The staple seasonal crop of blue camas (*Camassia quamash*), a starchy, bulbous root in the lily family, also thrived under relatively intensive management in these intentionally cleared and cultivated areas. Indeed, *Meegan*, the “range of plains” around present-day Beacon Hill that decided the site for Douglas, was a prominent harvesting ground for the bulbs.²⁸ Particularly rich camas beds like *Meegan*, according to Lutz, were understood to be “owned by extended families,” and *siems* “stewarded and managed the use of resources.”²⁹ Thus, where Douglas saw open meadows and oak thickets that closely resembled picturesque English pastures and parklands, Lekwungen peoples saw prime hunting and harvesting grounds owned and rigorously maintained across generations.³⁰ These conflicting visions of land use – between strict European fee-simple property rights and Lekwungen understandings of spiritually inflected, concentric familial ownership – would quickly lead to conflict, negotiation and the expansion of settlement in the human-animal borderlands at an “edge of empire.”³¹

In April of 1852, Douglas wrote to Earl Grey at the Colonial Office in London, outlining

²⁵ G. P. de Twenebroker Glazebrook (ed). *The Hargrave Correspondence, 1821-1843*, 420.

²⁶ Lutz, *Makúk*, 67.

²⁷ Brenda Raye Beckwith, “*The Queen Root of This Clime*”: *Ethnoecological Investigations of Blue Camas and its Landscapes on Southern Vancouver Island*, British Columbia (PhD dissertation, University of Victoria, 2004): 59.

²⁸ Lutz, *Makúk*, 72. See also Cole Harris, in *The Resettlement of British Columbia*, 219.

²⁹ *Ibid.*, 55. See also Robert Brown, “On the Vegetable Products used by the North-West American Indians as Food and Medicine, in the Arts, and in Superstitious Rites.” *Transactions of the Botanical Society of Edinburgh* 27 (1868): 379-80.

³⁰ *Ibid.*

³¹ Harris, “How Did Colonialism Dispossess?,” 165. For more in-depth discussion of conflicting understandings of land ownership and usufruct rights, see Lutz, *Makúk*.

the recent developments at the growing colony. “We have had no...cause of complaint nor difference whatever with the Indians since my last report,” he wrote, “and probably no serious difference would ever occur were it not for the running cattle, which often stray into the woods, at a distance from the settlement.” The free-roaming oxen, Douglas worried, offered “an irresistible temptation to the hungry Indian, returning unsuccessful from the chase, whose ideas are...somewhat indistinct as to the real value of domestic cattle.”³² The Lekwungen people treated the bovine property of the budding settlement “in the same light as the deer of the forest,” he wrote, in a particularly Lockean fashion, “[in] which he believes there is no exclusive property.”³³

Shipped from Nisqually and allowed to roam freely across Lekwungen-managed landscapes, the bodies of the company’s sheep, pigs, and especially cattle became potent sites of conflict through the establishment of the HBC’s colonial project. These were truly, as historian Virginia Anderson has written, “creatures of empire.”³⁴ As stock animals followed their appetites further and further from the fort and its outbuildings, relying on Lekwungen agricultural sites for graze, they brought with them the imagined boundary line of colonial settlement, and bore “real value” as fee-simple property. These animals represented, to their HBC owners, walking capital. Any threat to their wellbeing was consequently interpreted as a threat to corporate assets as well as the larger project of British dominion and settlement, and retaliatory violence soon followed in their hoofprints.

³² Douglas to Earl Grey, December 1852, National Archives of the UK, CO 305/3. *The Colonial Despatches of Vancouver Island and British Columbia 1846-1871*. Ed. James Hendrickson and the Colonial Despatches Project. Victoria: University of Victoria.

³³ Ibid.

³⁴ See Virginia DeJohn Anderson, in *Creatures of Empire: How Domestic Animals Transformed Early America* (New York: Oxford University Press, 2004). Although Anderson’s discussion is geographically and temporally confined to settlement in New England and the Chesapeake in the 17th century, her analytical framework proves useful in framing the dispossessive role domestic livestock played in ‘territorializing’ colonialism.

The HBC and, later, PSAC's free-roaming grazing practices were taken up in a somewhat counterintuitive way as a response to the biological needs of the animals themselves. Earlier, more labor-intensive experiments with fenced enclosure at Nisqually had generally ended in failure.³⁵ Cattle and sheep had initially been driven into confined quarters nightly to provide manure for the Hudson's Bay Company's expanding agricultural plots, but crowding the animals into pens rendered them vulnerable to wolves, cougars, and other native predators that took advantage of stationary prey. Moreover, as Gibson notes "the confined animals became so nervous" due to the constant threat of predators "that pregnant cows often aborted."³⁶ At the behest of Nisqually's later chief factor William Fraser Tolmie, daily enclosure for the purpose of fertilizing fields was discontinued at the farm in 1843 to avoid mounting losses of company property.³⁷

Given the extensive communication and personnel overlap between HBC and PSAC establishments, the lessons learned at Nisqually certainly followed the animals when they were shipped north. The only livestock that seem to have been kept consistently penned in the records at Fort Victoria were pigs, whose destructive rooting presumably jeopardized crop yields at the fort's expanding grain and vegetable plots. As such, they became proverbial sitting ducks. Finlayson records several instances of wolves and "Indian dogs," killing and "severely mutilat[ing]...young pigs" enclosed in pens outside of the company's dairies.³⁸ The wolves were evidently a major cause for concern, as they are recorded as "prowl[ing] around every night," and HBC laborers were quick to set out strychnine-laced bait to contain the threat.³⁹ Clearly,

³⁵ Gibson, *Farming the Frontier*, 101.

³⁶ *Ibid.*, 121.

³⁷ Gibson, *Farming the Frontier*, 121.

³⁸ "Fort Victoria Journal," 30 June 1847. Hudson's Bay Company Archives, B. 226/a/1. Edited and transcribed by Graham Brazier et al, eds. *Fort Victoria Journal*, www.fortvictoriajournal.ca.

³⁹ *Ibid.*, 20 June 1848.

enclosure came with its own risks.⁴⁰ Moreover, in the early days of Fort Victoria's construction, few fodder crops had been sown, which largely ruled out the possibility of keeping sheep and cattle enclosed – if the animals could not find enough food, then it was imperative that it be brought to them. As a relatively small group of company laborers and indentured workers spent the majority of their time and effort on construction, processing furs and tending to their own food crops, they proved unable to provide food for enclosed animals, especially as the *Beaver* continued to deliver shipments of Nisqually cattle and other livestock to the fort regularly through the late 1840s and early 1850s.

Luckily for these early settlers, the mild climate of southern Vancouver Island allowed cattle (and to a lesser extent sheep) to roam almost entirely freely, requiring sustained attention only during particularly cold winters and springtime calving seasons.⁴¹ Abundant Lekwungen camas, as well as other staples like clover, bracken fern and cow parsley, constituted free and dependable sources of food for HBC men's hungry co-colonizers, too – at least in their eyes. As anthropologist Patrick Wolfe argues, “through its ceaseless expansion, agriculture (including, for this purpose, commercial pastoralism) progressively eats into Indigenous territory, a primitive accumulation that...curtails the reproduction of Indigenous modes of production.”⁴² In the human-animal borderlands of southern Vancouver Island, cattle and sheep literally ate into Lekwungen territory as their numbers expanded, playing materially dispossessive roles in the process of settlement through their devastation of Lekwungen-maintained food sources and

⁴⁰ Ibid.

⁴¹ See “The Fort Victoria Journal.” Cattle were occasionally found frozen to death on the ‘plains’ around present-day Beacon Hill if they were not corralled indoors during periods of below-freezing temperatures. Similarly, calves were ‘brought in’ after birth both as a means of luring milch cows back to the fort’s outbuildings for milking, and so that they grew accustomed to human presence. For an extended discussion of “imprinting” young livestock to assert ownership and dominion, see Anderson, 128.

⁴² Patrick Wolfe, in “Settler Colonialism and the Elimination of the Native,” *Journal of Genocide Research* 8, no. 4 (2006): 395.

modes of (re)production.

For settlement authorities like the HBC's Roderick Finlayson, allowing sheep and especially cattle to graze unimpeded in the area surrounding the new fort maintained their natural increase and offset property losses caused by animal predation. Yet other problems quickly began to arise. "In ranging so freely," Gibson notes, "they became quite wild."⁴³ Roaming miles from the HBC establishment, the cattle began to resemble the 'wild' native animals their release was designed to avoid. "They are no benefit to the concern than as an article of food," Governor of the Columbia Department George Simpson complained of these nomadic bovines, "[they are] the produce of the chase, in like manner as Buffalo are in Saskatchewan."⁴⁴ The 'wildness' of cattle was broadly acknowledged by contemporaries – indeed, Finlayson referred to all horned cattle as "wild oxen" through the four years covered by his meticulous Fort Victoria journal, and routinely recorded attempts to find, catch, and re-domesticate them in order to harness them to ploughs. In March of 1849, Finlayson complained that he "had two men for the last two days trying to get in some of the oxen last received from Nisqually for work but without success."⁴⁵ The steers, he continued, "[were] so exceedingly wild that there is no getting near them."⁴⁶ When the colony's first independent settler, W.C. Grant, stepped ashore near *Meegan*, he was quick to train his musket on a herd of what reportedly he saw as "wild buffalo," killing one of fort dairyman Angus McPhail's 'best milch cows' minutes after arriving at present-day Clover Point.⁴⁷ It seems that in their spatial arrangement, behavior, and appearance these cattle were – for newcomers, company men and Lekwungen alike – untamed animals.

⁴³ Gibson, *Farming the Frontier*, 121.

⁴⁴ *Ibid.*

⁴⁵ "The Fort Victoria Journal," 2 March 1849.

⁴⁶ *Ibid.*

⁴⁷ Joseph McKay, "Reminisces," reprinted in *The Daily British Colonist*, 18 April 1935.

In the process of re-domesticating these reluctant cattle, the HBC's human constituents were often placed at the wrong end of their formidable horns. Resulting injuries could be severe. In 1846, one company servant, a Hawaiian man named Jack Kaau, received such a deep wound to the face in the process of dressing an ox's wounds that he was relegated to bed rest for nearly a month.⁴⁸ Free-ranging, feral cattle did not only target Lekwungen-owned fields either – in the early summer of 1848, a herd broke through the fences at Ogden's Fields (later Beckley Farm) in James Bay, “destroying a large portion” of the recently planted oats.⁴⁹ Finlayson quickly instated a night watch to ensure no further damage to the company's valuable vegetable property.⁵⁰ Clearly, in their efforts to ensure maximum increase of animal property, the settlers of the HBC were willing to make some compromises.

With free-ranging livestock functioning as uneasy extensions of settler power as well as avatars of property, any threat to their bodies was interpreted as a threat to the stability of the colonial project itself. Finlayson consistently makes special mention in the fort's log of predation and damage done to the fort's doubly valuable animal property. “An arrow was found stuck in the ear of one of the calves,” he noted in late March of 1848, “no doubt by some malicious Kawitchin (*sic*) or other distant tribes.”⁵¹ Finlayson was quick to add, however, that “the injury is however of no consequence[,] it not being mortal.”⁵² Here, the understanding of livestock as capital is clear – while the destruction of property by “some malicious Kawitchin” was cause for concern, the “real value” of the calf – in its bodily integrity – was not impacted. Yet circumstances were different when nonhuman lives were taken, especially as stock-raising began

⁴⁸ “The Fort Victoria Journal,” 4 June 1846.

⁴⁹ *Ibid.*, 17 June 1848.

⁵⁰ *Ibid.*

⁵¹ “The Fort Victoria Journal,” 24 March 1848.

⁵² *Ibid.*

to spread outward from the fort and further into Indigenous territories. In June 1848, Finlayson recorded that “McPhail[,] when in search of the cows this afternoon found two Indians carrying away the carcass of an animal belonging to us which they had shot.”⁵³ As the company’s dairyman rode furiously after the men, they “abandoned the meat & ran into the woods so that he could not catch them or ascertain to what tribe they belonged.”⁵⁴ Five months later, one of the culprits was apparently found, and Finlayson had him “secured for the night with hand cuffs” before “seiz[ing him] up to one of the trees in the yard & [giving] him 3 doz. Lashes.”⁵⁵

This sort of retaliatory, summary justice was common in the first decade of territorialization and settlement in the area around Fort Victoria, as HBC fur traders and laborers attempted to assert an understanding of space and property that extended beyond their stationary possessions to their unsettlingly mobile, nonhuman ones. As Cole Harris writes, “Natives were to understand...that quick, violent retribution would follow any attack on the personnel or property of the fur trade” – and as livestock multiplied and spread out across the Indigenous landscape, such retributive violence followed.⁵⁶ Spectacular shows of English military and technological power as retaliation for cattle killing took place at the fort in 1844 and 1852, and Douglas ordered a large-scale naval invasion of Quw’utsun and Snuneymuxw lands in the autumn of 1852. In this case, British Navy marines ransacked two villages, and two men were summarily hanged for the murder of HBC shepherd Peter Brown at a sheep station some distance from the fort.⁵⁷

Beyond their roles as walking property and signifiers of British dominion, cattle, sheep

⁵³ “The Fort Victoria Journal,” 8 June 1848.

⁵⁴ Ibid.

⁵⁵ Ibid., 30 October 1848.

⁵⁶ Harris, “Strategies of Power in the Cordilleran Fur Trade,” 48.

⁵⁷ Despatch to London, Douglas to Pakington, 933, CO 305/3, 147, received 29 January 1853, [No. 8], Vancouver’s Island, Fort Victoria, 11 November 1852.

and pigs played important symbolic roles to settlers themselves, especially as growing numbers of indentured PSAC laborers and independent colonists flocked to the island through the 1850s. Around 180 largely Scottish and British settlers bought land around Fort Victoria between 1849 and 1858, and dozens of workers and servants of the PSAC and HBC arrived at the growing settlement to provide labor for expanding settler farms like the extensive Uplands Farm on the southeastern coast.⁵⁸ Nonhumans were vital to this process of expanded settlement and agriculture, as growing numbers of familiar European animals featured prominently in telling settler colonists who and what they were in unfamiliar territory.

Significantly, settlers extensively documented the reproduction and increase of livestock and called upon the growth of herds to instill a sense of permanence and belonging, a simultaneously forward-looking and historically conscious view of permanent colonial progress that historian Laura Ishiguro has characterized as “settler futurity.”⁵⁹ In situations where “white settler power and belonging seemed tenuous,” she writes, the natural increase of settler bodies – both human and nonhuman – became a central concern of colonial administration.⁶⁰ Establishing a semblance of durability was an important aspect of the forward-looking politics of settler futurity, and a growing mass of human and nonhuman bodies was vital to creating such an illusion of permanence. “Settler colonialism itself is a contingent form of aspiration, a contested vision among alternative futurities,” Ishiguro writes. “[It] is powerful and destructive, but it is always also project and projection – a ‘work of time’ aimed at ‘a society to come.’”⁶¹ In this way, as theorist Billy-Ray Belcourt argues, “colonial animalities are inseparable from the colonized

⁵⁸ Richard Mackie, in “The Colonization of Vancouver Island, 1849-1858.” *BC Studies* 96 (Winter 1992-1993): 4.

⁵⁹ Laura Ishiguro. “‘Growing up and grown up [...] in our future city’: Children and the Aspirational Politics of Settler Futurity in Colonial British Columbia.” *BC Studies* 190 (Summer 2016): 15.

⁶⁰ Ishiguro. “‘Growing up and grown up [...] in our future city,’ 15.

⁶¹ *Ibid.*,” 37.

spaces in which they are subjected and labored,” and indeed played crucial roles in imposing a specific, ostensibly inevitable settler future of British agrarianism in Indigenous territory.⁶² Both as familiar visual signifiers of European land use and pastoralism, and as material progenitors of the colonizing project, settler-owned cattle, sheep and pigs – no matter how feral they may have seemed to onlookers – played important roles in ensuring an envisioned future of colonial space on Vancouver Island. Any increase in their population thus became cause for celebration.

Continual reproduction of nonhuman colonizers, in this way, became a preoccupation of early settlement authorities and laborers alike as a way of quantifying and representing settler permanence and progress. Despite the inherent difficulties in tallying the cattle and horses ranging freely around the fort’s grounds and sometimes far beyond, Roderick Finlayson’s journal kept careful count of increases to the herd ‘brought in’ or sighted during calving season, and often noted the long hours that Angus McPhail and his French-Canadian colleague Jean-Baptiste Dupuis spent on the plains outside the fort in search of calves and foals. In 1848, the fort administrator paid particular attention to the growing numbers of cattle, noting almost daily discoveries of newborn calves – “McPhail has now got 19 cows with calves,” he wrote on March 11, “which are daily milked.”⁶³ Nine days later, he reported their ranks at 28, and by April 15th their numbers had swelled to 64 – so many, in fact, that the company dairymen “[ran] short of milk dishes.”⁶⁴ The 1853-1857 diary of indentured PSAC laborer Robert Melrose, working at bailiff Kenneth McKenzie’s large farm at Craigflower, treated the proliferation of animals similarly. Between the records of human births on neighboring farms, he paid close attention throughout his journal to new litters of pigs, or lambs birthed during the spring, faithfully making

⁶² Billy-Ray Belcourt, “Animal Bodies, Colonial Subjects: (Re)Locating Animality in Decolonial Thought.” *Societies* 5, no. 1 (2015): 3.

⁶³ “Fort Victoria Journal,” 11 March 1848

⁶⁴ *Ibid.*, 20 March 1848, 15 April 1848.

note of increases to PSAC herds and flocks. The multiplication of animal bodies seems to have been treated, at least by Finlayson and Melrose, in a similar light to that of human ones, underlining the analogous role nonhumans had in supplying newcomers with hope and confidence in a permanent English colonial future – even as more cows simply meant more milk.

Perhaps most fundamental to the settlement project, however, was the material role livestock played in establishing colonial structure and space. Draught oxen provided key traction, hauling fence pickets, wood for stockades, and building materials to supply combined Lekwungen and Company construction teams. Horses were not exempt from HBC and PSAC service, hauling coal, processing wheat and barley, and providing transport across the settlement's growing distances. Milch cattle provided vital fat and calories in the form of butter, cheese, and cream, and provided milk-drinking English and Scottish settlers with their drink of choice. Once their use had been exhausted, the animals were slaughtered to provision naval vessels and merchant vessels, linking Victoria to wider maritime networks of commercial

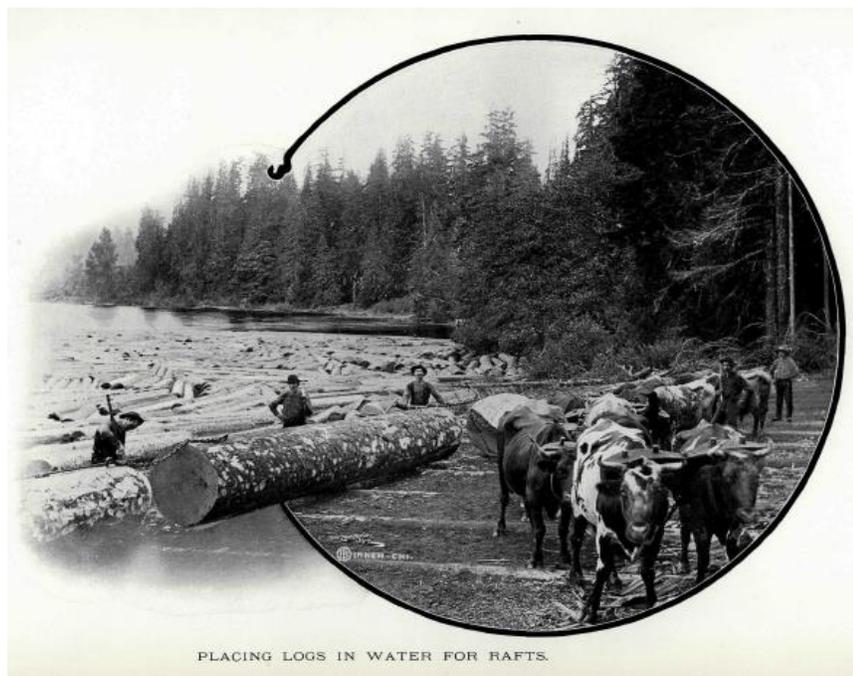


Figure 1: Horned cattle similar to the fort's earliest animals, providing traction for lumber haulage and transport in 1900. Image from British Columbia Department of Agriculture, *6th Annual Report of the British Columbia Department of Agriculture* (Victoria: Wolfenden Press, 1900)

exchange and, quite literally, keeping empire alive.

The construction of the fort – described by a contemporary as “the best built of the Company’s forts” – took only a matter of months, aided in no small part by an advance guard of twenty-three cattle and seven horses shipped from Nisqually aboard the steamer *Beaver*.⁶⁵ Building began in June of 1843, and the stockades began to take shape as early as November of the same year, with cedar pickets floated around the coast from the aptly named “Cedar Hill,” known to the WSÁNEĆ people as PKOLS, before being hauled to the site of the fort by oxen.⁶⁶ In early 1844, Chief Trader Charles Ross recorded “progress in regard to the Establishment” in the form of “a Quadrangle of 330 by 300 ft surrounded with Stocades, eighteen feet high” and eight interior buildings.⁶⁷ While he conceded that the farming at Victoria was “little more than in embryo” during the first year of construction, with only five acres ploughed and seeded with wheat, the next year saw the fort’s laboring men, along with Company oxen and horses and a sizeable contingent of Lekwungen conscripts, succeed in ploughing and harrowing one hundred and twenty acres for staple crops of oats, barley, turnips and peas.⁶⁸ Horses hauled coal from supply ships to storehouses located inside the fort’s stockades, “rolled, thrashed and winnowed” wheat and barley on a rudimentary threshing machine, and provided a means of tracking,

⁶⁵ Joseph Schafer, in “Documents Relative to Warre and Vavasour’s Military Reconnaissance of Oregon Country, 1845-6.” *The Quarterly of the Oregon Historical Society* 10, no. 1 (March 1909): 92. Also Gibson, *Farming the Frontier*, Table 29, 188.

⁶⁶ Robert Brown, in “A Monograph of the Coniferous Genus Thuja, Linn., an of the North American Species of the Genus Libocedrus.” *Transactions of the Botanical Society of Edinburgh* 27 (1868): 369.

⁶⁷ Charles Ross to George Simpson, January 10th, 1844. Reprinted in W.K. Lamb, “Five Letters of Charles Ross, 1842-44,” *British Columbia Historical Quarterly* 7, no. 2 (April 1943): 114.

⁶⁸ *Ibid.*, and Gibson, *Farming the Frontier*, 63. See also “The Fort Victoria Journal” through 1846. Human agricultural labor in the early days of the fort’s expansion was provided in large part by waged Songhees laborers and the HBC’s indentured Kanaka (Hawaiian), Iroquois, and French-Canadian workers, as well as nonhuman co-laborers. Historian John Lutz notes that “it was not unusual to have forty to one hundred people working on a single project, building or clearing land.” For additional notes on Lekwungen-settler labor relations, see Lutz, *Makúk*.

corralling, and slaughtering wandering cattle.⁶⁹ The fort's animal and human laborers, directed by administrator Roderick Finlayson, expanded the establishment's improved agricultural holdings significantly through the late 1840s, building dairies and thriving sheep stations, and preparing acres of land for English-style tillage agriculture. When Douglas assumed the role of administrator in 1849, he enlisted the crucial labor of cattle and horses to help in constructing four large PSAC farms, complete with outbuildings, in preparation for the arrival of the agricultural company's bailiffs from London. Overall, the laboring bodies of livestock were materially constitutive of colonial space, providing labor to establish institutions of settler reproduction, power, and permanence.

The hauling strength of draught oxen, in particular, allowed for the rapid construction of the stockades and bastions, as well as the outbuildings, dairies, and saw- and grist-mills necessary to support commercial-scale agriculture, fur storage, and eventual settlement. Cattle imported from the PSAC establishment at Nisqually were generally of the "Spanish" or "black" varieties imported from Spanish ranches and *presidios* in California to augment the PSAC's herds.⁷⁰ While poor milkers with "few choice cuts" of meat, the cattle were prolific, disease-resistant and proved powerful co-laborers in construction, despite their comparatively slim frames by English breeding standards.⁷¹ Almost a century later, Lekwungen-WSANEC man David Latass would remember them as "huge animals armed with horns," "monsters," and "great

⁶⁹ The Fort Victoria Journal, 8 October 1846. Horses were often 'brought in' at the close of the barley and wheat harvests to process grain faster and more efficiently. The vital role horses played in transportation between far-flung farming settlements in Metchosin and Sooke is emphasized in Martha Cheney Ella's diary, reprinted in James K. Nesbitt, "The Diary of Martha Cheney Ella, 1853-1856," *British Columbia Historical Quarterly* 13, no. 2 (April 1949): 101-112.

⁷⁰ C.S. Kingston, "Introduction of Cattle into the Pacific Northwest." *The Washington Historical Quarterly* 14, no. 3 (July 1923): 168.

⁷¹ The cattle described in Finlayson's journal appear to have averaged around 450 pounds each – compare to a contemporary average size across all breeds of 1,200 to 1,400 pounds. Possible reasons for the 'wild' cattle's smaller size include insufficient feed and uncontrolled breeding. For a discussion of disparities in size and weight between enclosed and free-range cattle, see Anderson, *Creatures of Empire*, 119.

beasts.”⁷² When yoked, teams of up to eight cattle per plough allowed HBC laborers, and later those from the PSAC farms, to prepare fields for cultivation quickly and efficiently – especially as plough blades cut easily through cleared land aerated by years of camas cultivation and controlled burning. Finlayson’s fort journal routinely records up to five ploughs working simultaneously, while other oxen hauled timber for fence pickets and roofing rafters. For example, during the week of August 28 to September 5th, 1846, Finlayson records the “week’s labor” as:

6 acres of land cross ploughed & 20 harrowed, 27 boards 12 ft long sawn, the roof of [fur storehouse] #5 completed, the cross-beams & stanchions prep[are]d & put up in both the New Stores, rafters per ox stable cut out by the men & hauled per oxen...about 8 acres of wheat reap’d, the Dairy cov[er]ed with bark, 6 boards 30 ft long sawn, 18 packs of furs dusted & aired & pressed.⁷³

Animal labor, however, did not only take the form of physical construction, traction, and haulage. Nonhuman products – in the forms of meat, milk, and butter – were also regenerative of the colonial endeavor and contributed to the intricate seaborne trade network linking Vancouver Island to the British imperial world. Company administrators envisioned the fort at Victoria as a self-sufficient agricultural zone, and expected stock and vegetable farms to provision the fort’s personnel along with other coastal fur trading forts and British naval ships. Milch cattle were particularly essential to early HBC settlers in this way, and would remain so through the turn of the twentieth century – German botanist Berthold Seeman, visiting aboard the *Herald* in 1846, remarked that “the first place we came to was a dairy, an establishment of great importance to the

⁷² Frank Pagett, “105 Years in Victoria and Saanich! Chief David Recalls White Man’s Coming; 80 Years’ Rent Unpaid.” *Victoria Daily Times*, 14 July 1934.

⁷³ The Fort Victoria Journal, 5 September 1846.

fort, milk bring their principal drink.”⁷⁴ Milk was a favored beverage for HBC workers, partly due to the scarcity of potable water near the fort, and partly, according to Seeman, due to “the rules of the company in great measure debarring the use of wine and spirits.”⁷⁵ As such, three dairies (at Church Hill, Gonzales, and North Dairy farm) were stocked “each with seventy milch cows” to satisfy the needs of thirsty workers, with numerous Lekwungen dairymen and cowherds aiding McPhail and Dupuis in milking cattle and churning butter.⁷⁶ HBC officer William J. Macdonald, arriving at the fort in 1851, was impressed to see that “milk and butter [were] in abundance,” while Finlayson records an average of “seventy kegs of butter” produced each calving season, much of which was earmarked for trade.⁷⁷

While milk and butter were relatively plentiful and available to HBC laborers and fur traders through the late 1840s, meat was still at a premium. Because oxen were generally used for labor and traction, fresh and cured salmon acquired from Lekwungen fishers made up the bulk of settlers’ diets, with coarse bread, potatoes, turnips, and other root vegetables and tubers as supplements.⁷⁸ Only on holidays were precious livestock slaughtered for HBC consumption – most notably, on Christmas and New Years’ Eve, when scant rations were augmented with beef, rum, flour and pork.⁷⁹ While pigs do not feature as prominently in the Fort Victoria records as oxen, milch cattle, and horses, the company clearly maintained some degree of pork production, as some four pounds of pork per man were dished out on celebration days through the late 1840s,

⁷⁴ Berthold Seeman. *Narrative of the Voyage of the H.M.S Herald During the Years 1845-51* (London: Reeve & Co., 1853): 102.

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*, 103. These early dairying establishments were located in what are now Victoria’s Harris Green, Lake Hill, and Foul Bay neighborhoods. See Lutz, *Makúk* for further discussion of Lekwungen participation in colonial labor markets, especially in shepherding, dairying, carting and cowherding.

⁷⁷ Flora Hamilton Burns, in “Victoria in the 1850s.” *The Beaver* (December 1949): 37. Also Finlayson, *Biography of Roderick Finlayson*, 16.

⁷⁸ Lutz, *Makúk*, 75-6. The predominance of turnips, carrots and other root vegetables as a staple can be seen throughout the Fort Victoria Journal, along with potatoes, peas, oats, wheat and barley.

⁷⁹ “The Fort Victoria Journal,” 25 December 1847, 25 December 1848.

occasionally supplemented by meat from the slaughter of a “tired” working ox or surplus bullock.⁸⁰

The bodies of livestock animals were instead largely pressed into service to supply the expanding Pacific maritime network of naval vessels and trading outposts. Commanding officers on whaling, merchant and naval ships arriving at nearby Esquimalt demanded beef and mutton, which Finlayson and Douglas gladly provided. 1847 saw the *Herald* and *Pandora*, two British surveying ships, dock at Esquimalt Harbor; Finlayson remembers that “we were able to supply these vessels with all the beef and vegetables they wanted” at eight cents per pound of flesh or produce.⁸¹ In June of 1848, Finlayson “entered into an arrangement with Mr. Thorne the purser [of HMS *Constance*] to have 480 lbs of fresh beef ready daily for sending on board.”⁸² Two months later, hungry sailors had eaten over thirty of the fort’s cattle.⁸³ By 1853, PSAC farms at Constance Cove, Viewfield, Colwood and Craigflower began to contribute to naval provisioning, with Craigflower in particular offering crews fresh mutton, beef, and pork in quantity.⁸⁴ These farms played host to large populations of livestock – according to a census conducted by Douglas in 1854, they housed a combined 59 horses, 40 milch cows, 37 working oxen, 161 ‘other cattle,’ 2,525 sheep, 148 swine, and 172 poultry of various varieties.⁸⁵ At Craigflower, a primarily sheep-raising establishment, Melrose records 15 to 20 of the flock killed per month, along with several pigs and the occasional bullock – some of which was “served out” to laborers, but the

⁸⁰ Ibid., 25 December 1848, 31 December 1847.

⁸¹ Finlayson, *The Biography of Roderick Finlayson*, 18.

⁸² “The Fort Victoria Journal,” 27 June 1848.

⁸³ “The Fort Victoria Journal,” 23 August 1848.

⁸⁴ The PSAC reserves were largely sited on the Esquimalt peninsula. As the land proved rocky and difficult to clear for vegetable or grain cultivation, they functioned largely as livestock ranges.

⁸⁵ Census reprinted in W.K. Lamb, “The Census of Vancouver Island, 1855.” *British Columbia Historical Quarterly* 4 (1940): 51-58.

majority of which was earmarked for naval vessels or trade.⁸⁶ When preserved through “pickling” or salt-curing, the flesh of cattle, sheep and pigs provided merchandise for overseas commerce with the Sandwich Islands (Hawaii) and Russian holdings at New Archangel on the Northwest Coast, as well as with fur-trading depots and forts through the Columbia Department. These regional and global networks of trade, the same routes on which the HBC’s ‘wild’ animal furs took their circuitous route toward markets and processing facilities in Britain, bore the bodies of livestock, both alive and disarticulated, with them.

Thus, through their outsize roles in construction, traction and haulage, the steady supply of milk and butter they provided, and their fleshly implication in wider circuits of imperial trade and commerce, Victoria’s livestock were vital in forcibly reconfiguring Indigenous territory and creating English settler space in Lekwungen ancestral territories. Their labor supplemented that of Lekwungen, HBC, and PSAC workers in constructing the symbols and institutions of empire, while their products, and ultimately their bodies, quite literally fed imperial designs and perpetuated the larger project of settlement. Cattle, as they wandered far from PSAC and HBC settlements, continued to push the frontier of settlement, bearing with them a physical manifestation of a new property regime that was backed by force. The increases in herds and flocks further concreted the future of settlement on Vancouver Island, as the multiplication of animal bodies echoed the hope for a colonial future. As growing numbers of cattle, sheep, pigs, poultry and horses arrived on the shores of Vancouver Island through the ensuing years, they would continue to provide the fuel for settlement, and bolster property claims based on improvement through their constructive and regenerative labor. These sometimes unwilling, sometimes wild, but always colonial nonhumans were, indeed, creatures of empire.

⁸⁶ W.K. Lamb (ed), “The Diary of Robert Melrose, Part III,” *British Columbia Historical Quarterly* 7, no. 4 (1943): 283-295.

“A Miserable Lot of Starved Brutes”:

Demographic Growth, Nuisance, and Closing the Animal Commons, 1858-1880

In November 1862, Amor de Cosmos published an editorial in his newspaper, the aptly named *Daily British Colonist*, that demonstrated the rapid pace of urbanization in the newly incorporated town of Victoria. De Cosmos, a Nova Scotian transplant, had arrived in the city with throngs of miners four years earlier and was evidently amazed at the rate of construction and settlement in the small colony. He remarked that “no one can look back on our career for the last twelve months without being astonished at the wonderful change that has taken place.” Indeed, he maintained, settler space had undergone a “magical” transformation. “Whether we regard the change as respecting our population, the growth of our commerce, the increased value of property...the number and importance of our public works, the settlement of our wild lands, [or] the number and value of improvements in the shape of buildings erected in our city,” he wrote, “everything shows a vast leap.”¹

While certainly hyperbolic and written in classic booster fashion, de Cosmos’ editorial underscores the monumental changes the young city was experiencing. With the influx of thousands of prospective miners between 1858 and 1862, the settlement’s farmland, gardens, and pastures were rapidly converted into a bustling, dense urban space. In the streets of Victoria, this meant that humans and nonhumans shared increasingly close quarters, and the administrators of the sleepy agricultural and fur-trading colony were quickly tasked with spatially policing the newly urban area to account for the primacy of private property, the maintenance of public

¹ “Our Growth,” *The Daily British Colonist*, 26 November 1862

health, and the abatement of nuisance. In so doing, they sought to shape a particularly modern vision of British-inflected urban space – a “London of the Pacific,” in the words of one commentator – in which animal bodies were by no means disallowed, but were instead subjected to processes of sorting and control that reflected the colonial town’s tenuous balance between subsistence and modernity, necessity and property.²

The pace of settlement at Victoria had been, by all accounts, slow. Although several sizeable farms were taken up by PSAC across the Esquimalt Peninsula through the 1850s, and despite the growing holdings of retired HBC employees such as Roderick Finlayson, John Work, Joseph Pemberton and James Douglas in present-day James Bay, Rock Bay, and Oak Bay, the colony had seen only a trickle of independent immigration from the British Isles. One cause of this underwhelming settlement lay in the short-sighted adoption of the Wakefield system for systematic colonization by Earl Grey at the British Colonial Office.³ Wakefield’s was a system that aimed to emulate Britain’s and Scotland’s rigidly stratified social structure and private property regime by selling land at the relatively steep price of one pound per acre, with a minimum purchase of twenty acres.⁴ This method of “systematic colonization” aimed to attract families of means who would, the Colonial Office hoped, maintain a class-bound social system, with a small “colonial squirearchy” of landed elite directing a sizeable tenant agricultural labor force.⁵ Indeed, as HBC secretary James Barclay advised Douglas in an 1849 letter, “the object of every survey system of colonization should be....to transfer to the new society whatever is most valuable and most approved in the institutions of the old.”⁶ This would, Barclay assured the

² “Incorporation of Victoria,” *The Daily British Colonist*, 30 August 1860.

³ Richard Mackie, “The Colonization of Vancouver Island, 1849-1858.” *BC Studies* 96 (Winter 1992-93): 9.

⁴ *Ibid.*, 8-9.

⁵ Sydney G. Pettit, “The Trials and Tribulations of Edward Edwards Langford.” *British Columbia Historical Quarterly* 17, no 1 (January 1953): 9.

⁶ Barclay to Douglas, 17 December 1849, in Hartwell Bowsfield, ed., *Fort Victoria Letters 1846-1851* (Winnipeg: Hudson’s Bay Record Society, 1979): lii-liii.

governor, ensure that “Society may, as far as possible, consist of the same classes, united by the same ties, and having the same relative duties to perform in the one country as in the other.”⁷

The limited potential for agriculture in the immediate vicinity of Victoria posed problems for the application the Wakefieldian framework, however. The cost of clearing and draining land was prohibitive for most independent settlers, and land fit for the plough was in short supply among southern Vancouver Island’s rocky outcrops and dense thickets.⁸ Further, the HBC’s fur trade reserve and network of farms occupied much of the arable land surrounding the fort and growing settlement. In comparison, the United States’ liberal land policy, which allowed cost-free pre-emption of up to 640 acres on the basis of improvement, made Washington Territory a much more attractive site of settlement for agriculturalists. Gold strikes in California in 1849 diverted many settlers’ attention to the gold-bearing lands lying across the border to the south, while the arduous sea voyage to Esquimalt Harbour from London or Liverpool – one that could take up to seven months – provided a significant deterrent for prospective emigrants.⁹ Rates of independent settlement through the decade were thus relatively low.¹⁰ Those with the financial means to buy and clear land most often came from the Hudson’s Bay Company’s ranks of working and retired officers. These men, as property owners and British subjects, easily met the requirements for the elective franchise – ownership of twenty acres of land to vote, three hundred to run for office – and quickly became key players in the legislative assembly and municipal

⁷ Barclay to Douglas, 17 December 1849.

⁸ Mackie, “The Colonization of Vancouver Island,” 36.

⁹ Stephen Royle, in *Company, Crown and Colony: The Hudson Bay Company and Territorial Endeavour in Western Canada* (London: I.B. Tauris, 2011): 27.

¹⁰ Some independent settlers did take up land in the outskirts of settled space in Saanich, Colwood, Langford and Sooke, but the course of colonization was slow through the 1850s. At the beginning of the decade, Captain Charles Johnson of the HMS *Driver* reported around one hundred men at Victoria and the surrounding area, all of them company employees (see Charles Johnson to Sir Phipp Hornby, 21 June 1850, NMM, PHI/3/5). Douglas’ 1855 census tabulated the overall number of non-Native settlers in Victoria at 232, and by his 1858 arrival at the colony Alfred Waddington estimated its population at 800 (See Waddington, *The Fraser Mines Vindicated*, 16.)

council of the new colony.¹¹ Indeed, as historian Richard Mackie notes, the adoption of the Wakefield system and the slow rate of immigration resulted in a “conservative, atavistic, hierarchical, and land-based political culture dominated by those who could afford to buy land, most of whom were former and active [...] Company employees.”¹² It was this enfranchised, land-rich class of ex-fur traders and Company administrators – a group de Cosmos derided as “the Family Company Compact” – that would dictate the shaping of urban space in Victoria through crucial years of initial growth.¹³

The 1858 Fraser River gold rush complicated matters of administration and control of colonial space for these men. As news of gold-filled rivers and canyons rippled through the extensive trading and shipping routes of the British Empire and beyond, thousands of prospectors flocked to the fledgling colony to purchase monthly mining licenses and supplies for their journey to the rich alluvial mineral deposits of British Columbia’s mainland. In a matter of months, hundreds of grey canvas tents and wood shanties sprang up, and mining aspirants resorted to squatting on Company-owned land stretching from Government Street to Spring Ridge nearly a mile to the east.¹⁴ “This immigration was so sudden,” Superintendent of Education Alfred Waddington later remembered, “that people had to spend their nights in the streets or bushes.”¹⁵ As Lutz notes, the influx of Euroamerican miners and colonists was coupled

¹¹ The possibility of serving on Victoria’s municipal council was restricted to those “being a male British subject of full age,” who had resided in the colony for at least six months, and who had been rated on the Municipal Assessment Roll as being in possession of “freehold to at least the value of five hundred dollars” or a leasehold of at least one hundred dollars yearly. The city was divided into three wards (Johnson Street, Yates Street, and James Bay), with two councillors drawn from each. For a complete discussion of property requirements, etc, see Crease, Phillippo, and Alston, *The Laws of British Columbia Consisting of the Acts, Ordinances, and Proclamations of the Formerly Separate Colonies of Vancouver Island and British Columbia, and of the United Colony of British Columbia* (Victoria: Government Printing Office, 1871).

¹² Mackie, “The Colonization of Vancouver Island,” 31.

¹³ See Sylvia van Kirk, “Tracing the Fortunes of Five Founding Families of Victoria,” *BC Studies* 115/116 (Autumn/Winter 1997/8)

¹⁴ Dorothy Blakey-Smith, in *The Reminiscences of Dr. John Sebastian Helmcken* (Vancouver: UBC Press, 1975): 155.

¹⁵ Alfred Waddington, *The Fraser Mines Vindicated: or, the History of Four Months* (Victoria: De Garro, 1858): 16.

with a mass migration of Indigenous groups from across the Northwest Coast, many of whom found employment as laborers in booming agricultural, resource extraction and construction sectors.¹⁶ Chinese miners and merchants also arrived with the news of gold, establishing a dense enclave along Cormorant and Fisgard streets in the city's north end. With the influx of miners and businessmen came gamblers, loan sharks, and "an indescribable array of Polish Jews, Italian fishermen, French cooks, jobbers, speculators of every kind, land agents, auctioneers, hangers on at auctions, bummers, bankrupts, and brokers of every description," Waddington remembers. "Never perhaps was there so large an immigration in so short a space of time into so small a place."¹⁷ After more than a decade of quiet agriculturalism and fur trading, "Victoria," he wrote, "had at last been discovered."¹⁸

The growing population of the settlement, augmented by returning miners and growing numbers of urban wage-workers, emigrants, industrialists, colonial administrators and laborers, began to transform what had been a broad expanse of woodland, farmland and plain into a bustling, compact urban area, "reorganiz[ing]," as historian Penelope Edmonds writes, "space and culture."¹⁹ Two years after the first influx of miners, the HBC's Alexander Grant Dallas sold part of the company's original 'home' farm for \$12,000 to land agent Leopold Lowenberg, who subdivided it into small lots along Government Street and offered them for sale to land

¹⁶ John Lutz, "After the Fur Trade: The Aboriginal Labouring Class of British Columbia, 1849-1890." *Journal of the Canadian Historical Association* 3, no. 1 (1992): 75.

¹⁷ Waddington, *The Fraser Mines Vindicated*, 16.

¹⁸ *Ibid.*

¹⁹ For a GIS-informed study of Victoria's dense urban living quarters later in the century, as well as smell- and sound-scapes of a bustling nineteenth-century colonial city, see Patrick A. Dunae, Donald J. Lafreniere, Jason A. Gilliland, and John S. Lutz, "Dwelling Places and Social Spaces: Revealing the Environments of Urban Workers in Victoria Using Historical GIS." *Labour/Le Travail* 72 (Fall 2013): 42. Helmcken notes the influx of colonial administrators and clerks, as well as early industrialists, in Blakey-Smith, *Reminiscences*, 160. Edmonds' perceptive discussion of settlers' imaginative reorderings of space and culture in urban frontiers is expanded upon in Edmonds, "From Bedlam to Incorporation: First Nations, Public Space, and the Emerging City," in *Urbanizing Frontiers: Indigenous People and Settlers in Nineteenth-Century Pacific Rim Cities* (Vancouver: UBC Press, 2010): 184.

speculators and settlers.²⁰



In this 1863 map, the former agricultural land surrounding Fort Victoria was subdivided into a tight grid of marketable property concentrated around the downtown core, hemmed by the large farms of HBC men like Roderick Finlayson. H.O. Tiedeman.

“Town of Victoria, V.I., Subdivision of Section 1.” Victoria: Waterlow & Sons, 1863.

By 1863, the company’s extensive pastures and agricultural holdings adjacent to the fort had been transformed into gridded, marketable private property, which was eagerly snapped up

²⁰ “Ld. Lowenberg, Real Estate Agent,” *The Daily British Colonist*, 28 January 1860.

by land speculators.²¹ Stores, wharves, stables and slaughterhouses sprang up quickly to supply miners and settlers – Alfred Waddington notes that over two hundred commercial establishments were erected within the space of six weeks over the turn of the decade.²² Human and animal bodies traversed the bustling settlement constantly, transporting goods, produce and livestock from PSAC and HBC farms to the town’s commercial center concentrated around the erstwhile fort, and from wholesale merchants on Wharf Street to grocers and retailers across the city.

The 1858 gold excitement was closely followed by a series of gold discoveries throughout the new mainland colony of British Columbia as well as on the island in the early 1860s – most notably in the Cariboo region in 1862, and smaller discoveries on the Stikine River in 1863 and Leechtown (near Sooke) in 1864. The renewed promise of riches brought another, larger tide of prospectors and speculators flooding into what was now a rapidly densifying city. Colonial landowners such as J.S. Helmcken, Roderick Finlayson, William Leigh, and James Yates thus found themselves well positioned to earn their fortunes in early land sales – Helmcken’s extensive urban properties were assessed at \$32,000 in 1862, for example, while Finlayson’s garnered \$12,000.²³ “Much of their Land, owing to the proximity to Town, became very valuable during the Gold excitement,” emigrant James Bell later wrote, “many awoke one morning to find themselves rich.”²⁴ Indeed, Helmcken remembers selling three city lots for one thousand dollars each, each which was paid for in gold ore.²⁵

²¹ See Blakey-Smith, *Reminiscences*, 158-9. Helmcken was well-positioned to witness the property boom firsthand, as a prominent doctor who visited households throughout the city.

²² Waddington, *The Fraser Mines Vindicated*, 18.

²³ Harry Gregson, in *A History of Victoria, 1842-1970* (Victoria: J.J. Douglas Ltd, 1977): 23.

²⁴ James Bell, qtd in Willard E. Ireland, “Gold Rush Days in Victoria, 1858-1859.” *The British Columbia Historical Quarterly* 12, no.3 (July 1948): 237.

²⁵ For context, the three sales would have amounted to around \$75,000 in 2020 currency. For a further discussion of property values in a booming gold rush Victoria, see Blakey-Smith, *Reminiscences*.

Ensuring a reliable food supply for the rapidly growing population of Victoria resulted in logistical challenges for colonial administrators and merchants.²⁶ Overland cattle drives from Oregon and Washington largely met the needs of mainland prospectors who had made the long journey up the Fraser and into gold country, but growing numbers of immigrants in Victoria, many of whom were accustomed to a protein-heavy Western diet, wanted meat too.²⁷ Local production often proved insufficient. Stocks of staple provisions like flour and biscuit rapidly ran short and, as Bell complained in a letter to his brother, “cattle and sheep...[got] scarce, and high in price, owing to the increased population.”²⁸ Despite efforts to establish a public market for local farmers in 1861, the city’s livestock imports quickly grew, especially after an 1858 proclamation that declared Victoria the customs port of entry for British Columbia.²⁹ Douglas also designated the town a free trade port between 1860 to 1866, and importers like Store Street’s Janion & Green quickly took advantage of the arrangement to import large numbers of animals, including cattle, hogs, sheep and poultry for slaughter and sale to settlers, emigrants and miners. A typical shipment could include “200 Fat Wethers, 200 Ewes, 80 Head [of] Beef Cattle, 20 Two Years Old Heifers, [and] 9 mules,” and thousands of nonhumans landed at the city’s “eight substantial wharves” along the Inner Harbor through the 1860s.³⁰ These livestock were imported both from the Sandwich Islands and from Puget Sound and Oregon Territory, where

²⁶ J.D. Pemberton, in *Facts and Figures Relating to Vancouver Island and British Columbia, Showing What to Expect and How to Get There; with Illustrative Maps* (London: Longman, Green, Longman and Roberts, 1860): 58.

²⁷ John Lutz, “Interlude or Industry? Ranching in British Columbia, 1859-1880,” *British Columbia Historical News* 13, no. 4 (Summer 1980): 4.

²⁸ James Bell, in Ireland “Gold Rush Day in Victoria,” 238.

²⁹ Hubert Howe Bancroft, in *The Works of Hubert Howe Bancroft, Volume XXXII: History of British Columbia, 1792-1887* (San Francisco: The History Company, 1887): 403. The *Colonist* reported on attempts to organize a public market by PSAC administrators Mckenzie and Skinner, as well as new arrival Robert Burnaby, in “Victoria Market Company,” *The Daily British Colonist*, 29 August 1861.

³⁰ See *The Daily British Colonist* 22 July 1859, 27 June 1859. Waddington, in typical colonial booster fashion, expounded on the great commercial opportunities afforded by the construction of the city’s wharves in *The Daily British Colonist*, 11 December 1858.

American settlement continued to edge out HBC agriculture and stock-raising. Typically, ranchers in western Oregon drove their herds from the stock-raising region around the Dalles to lower Puget Sound, where they were loaded onto steamers for transport across the international border to Victoria. These were truly maritime animal migrations, and long sea voyages were not always kind to animal passengers. In March of 1861, Captain Barrington of the *Growler* “met with very heavy weather” off Whidbey Island’s Point Partridge, during which the sea “swept over the deck, taking with it the cattle over the bulwarks.” Barrington lost eight cattle, which had to be “cut loose from their head ropes by which they were hanging.”³¹ The following May, one hundred sheep in a shipment of five hundred died on the fifteen-day passage from San Francisco to Victoria.³²

The masses of imported livestock that did survive posed sustained problems for the densely populated Inner Harbor area as they were driven off ships and through the streets to slaughterhouses, auction yards and pastures. In June of 1859, for instance, “one of the fiercest of the cattle” aboard the American ship *Eliza and Ella* dove into the waters of the harbor and swam across the shallow, muddy tidal flats of James Bay, making “straight for His Excellency [James Douglas].”³³ The governor, however, “caught the eye of the infuriated brute,” and deftly “held him at bay with his cane, till the lasso relieved him from his dangerous situation.”³⁴ Author and artist Emily Carr remembered the terrifying sight of stampeding herds of cattle driven through the city along busy Fort Street to slaughterhouses located outside the city limits on Cadboro Bay Road. “The wild range cattle were crazed with fright,” Carr recalled. “They bellowed and

³¹ *The Daily British Colonist*, 4 April 1861.

³² *Ibid.*, 30 May 1862.

³³ “His Excellency in Danger,” *The Daily British Colonist*, 27 June 1859.

³⁴ *Ibid.*

plunged all over the sidewalk, hoofing up the yellow dust.”³⁵ Pedestrians were forced to take cover where they could – women “ran to shut their gates before the cattle rushed in and trampled their gardens,” Carr noted, and “all the way up the street doors banged and gates slammed as everyone hurried to shelter.”³⁶



Butchers like Harry Stanley, pictured here at his shop in Victoria West, were often recipients of imported urban cattle “on the hoof” that were driven through the city’s streets. Christmas displays like this one typically featured animal carcasses decorated with ribbons, bows, and candles. “Harry Stanley’s Meat Market, 306 Edward Street, Vic West.” City of Victoria Archives.

The necessity of bringing livestock animals destined for slaughter in “on the hoof” to avoid spoilage in an era before reliable refrigeration, however, made their bodies a familiar hazard on the streets of the city through the second half of the nineteenth century, even as city

³⁵ Emily Carr, in *The Book of Small* (Vancouver: Douglas & McIntyre, 2004): 129.

³⁶ *Ibid.*

administrators sought to relocate nonhuman arrivals to areas further from the densely populated urban core. In 1875, the *Colonist* reported that a “wild steer” destined for the slaughterhouse had broken away from its drivers on Yates street, near the downtown core, and “made at a lady and two children standing on the sidewalk.”³⁷ The pedestrians only escaped serious injury by “climbing a low fence and taking refuge in a house.”³⁸ Editor D.W. Higgins remarked that “it would seem from the frequency of these alarming incidents that the time has arrived when the City Council should step in and specify the hours of each day during which cattle may be driven through the streets of the city.”³⁹ Sustained protest from rate-paying citizens would soon force the hand of the council, who restricted cattle-driving hours to early mornings and late evenings to protect city dwellers and their property.

Not all imported livestock were immediately destined for slaughter and butchery, however. Many were bought and sold at auction by the city’s residents as a means of providing food security, labor, and traction on settler properties. In the years of its initial growth, Victoria’s streets and public spaces thus began to take the shape of an urban grazing commons, an anthrozootic space alive with the sights, sounds and smells of a multi-species environment. As historian Sean Kheraj observes, it was common practice in nineteenth-century North American cities to raise livestock without fencing or enclosure – animals could be left to forage unattended, which “saved the owner the time and expense of having to lead his or her animals to pasture or to supply the animals with expensive fodder.”⁴⁰ This was especially the case in Vancouver Island’s mild maritime climate – in Victoria, boosters like Higgins boasted, “horses, cows, oxen, sheep

³⁷ *The Daily British Colonist*, 30 September 1875.

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ Sean Kheraj, “How Canadians Used to Live with Livestock in Cities,” in *Calgary: City of Animals* ed. Jim Ellis (Calgary: University of Calgary Press, 2017): 3.

and hogs [could] find their living year round.”⁴¹ This remarkably steady availability of feed tended to democratize animal ownership in early Victoria, allowing a wider socioeconomic swathe of the city’s residents to keep a cow, goats, pigs or chickens to supplement domestic diets and economies.

Many middle-class families, such as the Carrs, owned milch cows to supply their households and families with milk, cream and butter, and some sold or shared excess dairy products with neighbours. Horses were ubiquitous, both as transportation and as sources of industrial traction and haulage, and were turned out to graze if fodder was in short supply. Dogs, “Indian” and otherwise, roamed freely through the city’s streets, helping to control the city’s rodent population and occasionally snapping at passersby.⁴² Goats foraged by the sides of roads, in vacant lots – and most disturbingly – in the gardens and orchards of settlers, while pigs fed on refuse and decaying matter thrown into the city’s roadways and often dug holes under fences to ransack settlers’ kitchen gardens.⁴³ To the chagrin of local stock owners, goats and especially hogs rapidly degraded the public grazing spaces that could be used for pasturing more valuable (and less troublesome) cattle and horses. One *Colonist* subscriber, a Saanich man who identified himself as “Stock Raiser,” reminded newspaper readers that “hogs by rooting destroy the pasture that cattle feed upon,” and that “a dozen or two of hogs quartered in the public soon destroy all the pasture for miles around...[so that] the cattle in their neighborhood must be stall-fed or starve.”⁴⁴ Goats and hogs, understood as “ravenous brutes” by “Stock Raiser” as well as colonial

⁴¹ “Our Climate,” *The Daily British Colonist*, 12 December 1860.

⁴² The Lekwungen – and especially Lekwungen women – kept and bred dogs for their wool, which was used to weave point blankets before the incursion of HBC wool blankets. These dogs appear frequently in the historical record, and are often depicted as nuisance animals and destroyers of European animal property (especially sheep). For more discussion of canids in Lekwungen economies and lifeways, see Lutz, *Makúk*, 63-64.

⁴³ “Going to Go at the Goats,” *The Daily British Colonist*, 3 March 1862.

⁴⁴ “Cattle Vs. Hogs,” *The Daily British Colonist*, 13 January 1865

administrators, thus presented obstacles to property values, public order, and the city's more valuable animal residents, and became early targets for restrictive legislation.⁴⁵

In January of 1862, Governor Douglas and the Legislative Council of Vancouver Island Colony issued "An Act to Prohibit Swine and Goats from running at large in the Town of Victoria; and to prohibit Goats from running at large in the settled Districts of Vancouver Island."⁴⁶ It was primarily enacted "to protect property from the depredations of swine and goats running at large," but, as historians Catherine Brinkley and Domenic Vitiello note, hogs were also specifically targeted due to owners' inability to control their rooting behavior, and their troubling habit of feeding on town waste – commentators worried that waste-fed pigs would prove "unwholesome" additions to the city's food supply.⁴⁷ The legislation prohibited owners of pigs and goats from allowing them to roam freely in the roadside ditches and public spaces of the city's urban commons, and further stipulated that it was "lawful for the owner or occupier [of any property]...within the limits of the Town to shoot or otherwise kill all Goats and Kids, Swine and Pigs, which shall be found trespassing upon or near to any such land or premises."⁴⁸ Owners, the act indicated, would see no compensation for the destruction of their animal property.⁴⁹ The Act further conferred on policemen "the duty...to kill all and every of the before mentioned

⁴⁵ "Cattle Vs. Hogs," *The Daily British Colonist*, 13 January 1865.

⁴⁶ "An Act to Prohibit Swine and Goats from Running at Large in the Town of Victoria; and to Prohibit Goats from Running at Large in the Settled Districts of Vancouver Island." Victoria: Government Printing Office, 1861. The early Legislative Council was dominated by members of de Cosmos' "Family Company Compact," including Helmcken, W.F. Tolmie, and PSAC bailiff Thomas Skinner.

⁴⁷ Catherine Brinkley and Domenic Vitiello, "From Farm to Nuisance: Animal Agriculture and the Rise of Planning Regulation." *Journal of Planning History* 13, no. 2 (2014): 116.

⁴⁸ "An Act to Prohibit Swine and Goats from Running at Large in the Town of Victoria; and to Prohibit Goats from Running at Large in the Settled Districts of Vancouver Island." Victoria: Government Printing Office, 1861.

⁴⁹ *Ibid.*

animals which they shall find to be at large on the public streets and roads, and on any public or private property within the limits of the Town of Victoria.”⁵⁰

An editorial piece published four months later in the *Colonist* provides a tongue-in-cheek insight into the ramifications of this early ‘Hog and Goat Bill.’ “

Pop! Pop! Pop! Nearly every day, right under our Langley street window, goes the revolver of an official butcher clad in a blue coat and shining brass buttons, as he speeds a messenger of death into the vitals of some luckless vagrant hog that has wandered from its lonely pen in search of food or company... Langley street [in the heart of Victoria] is the greatest place for sporting in the whole country. There are more hogs and goats destroyed in that neighborhood than in all the rest of the town put together.⁵¹

This early police action was seemingly intended to regulate the behavior of animal owners as well as that of the animals themselves – as many disparaging references through the turn of the century to “Chinamen’s pigs” indicate, the targeting of hogs also played a racially-inflected disciplinary function.⁵² Langley Street lay one city block to the south of the Johnson Street ravine, a natural enclosure used by residents of nearby Chinatown to raise pigs, which were important animals in Chinese funerary rites as well as household economies.⁵³ As historian Bettina Bradbury notes, a pig, for many lower-class and racialized urban citizens, “represented a source of cash or food that would be available in times of unemployment and need – a valuable

⁵⁰ “An Act to Prohibit Swine and Goats from Running at Large in the Town of Victoria; and to Prohibit Goats from Running at Large in the Settled Districts of Vancouver Island.” Victoria: Government Printing Office, 1861.

⁵¹ “Official Butchers,” *The Daily British Colonist*, 30 May 1862.

⁵² For examples, see “Nuisances,” *The Daily British Colonist*, 5 September 1862, “Hogs,” *The Daily British Colonist*, 29 May 1873, “Horrible,” *The Daily British Colonist*, 23 February 1881, “City Council,” *The Daily British Colonist*, 29 August 1906.

⁵³ Julia Frances Lacy, “Showing Respect: Death Rituals of the Chinese Community in Coastal British Columbia.” MA Thesis, University of Victoria, 2016: 82.

supplement to a low, unsteady, and irregular wage income.”⁵⁴ By destroying urban pigs, city authorities also devastated immigrant possibilities for non-market income and subsistence, forcefully transmitting a vision of European bourgeois urban order and market participation to its underclass and racialized migrants.

In August of 1862, in the midst of the Cariboo gold rush, the Legislative Council officially incorporated the Town of Victoria. A mayor and councilors were duly elected, and were empowered by the colony’s leadership to create and enforce bylaws to order the growing and urbanizing area. Their mandate explicitly included the regulation of animal movement and behavior and revealed the ubiquity of nonhuman bodies in late nineteenth century colonial society. For instance, the Council was tasked with controlling nuisance within the city limits, regulating “immoderate riding or driving,” providing for the “inspection of all cattle, meats, fish and vegetables exposed for sale,” preventing cruelty to animals, “kill[ing] dogs running at large,” “prevent[ing] and regulat[ing]” horse racing and slaughterhouses, and establishing and regulating a city pound.⁵⁵ The first order of business for these new “City Fathers” was the state of the city’s streets and public spaces, and they arranged for a “Committee on Nuisances” to identify pressing concerns. Despite the efforts of city policemen tasked with their removal, the committee found “a number of pigs...kept in the space between Government, Johnson, Wharf, and Yates streets,” bordering the Johnson Street ravine, which they found to be “a great nuisance and annoyance of the citizens resident.” The committee also indicated that “a number of pigs [kept] in the gully between Johnson and Cormorant sts (sic)...were said to belong to Chinamen who were there

⁵⁴ Bettina Bradbury, in “Pigs, Cows and Boarders: Non-wage Forms of Survival Among Montreal Families, 1861-91.” *Labour/Le Travail* 14 (Fall 1984): 9.

⁵⁵ Crease, Phillippo, and Alston, *The Laws of British Columbia Consisting of the Acts, Ordinances, and Proclamations of the Formerly Separate Colonies of Vancouver Island and British Columbia, and of the United Colony of British Columbia* (Victoria: Government Printing Office, 1871): 317-318.

resident,” noting that “it is a common practice to keep pigs and slaughter them in this place and the effluvia is sufficient to cause disease.”⁵⁶ The committee further reported on the presence of several slaughterhouses within the city limits, which they worried would cause disease and endanger children. “It is obvious,” they opined, “that all slaughter-houses ought to be placed beyond the precincts of the town.”⁵⁷

With reference to the nuisance report of the Grand Jury, the municipal council signed several founding nuisance ordinances into law in late September 1862. These directives banned slaughterhouses, tanneries, distilleries, and “other offensive trade[s] or occupation[s]” from city limits and stipulated that “no person shall lead or drive any horse or cattle on any sidewalk or footpath.”⁵⁸ In a partial attenuation of the “Hog and Goat Bill” earlier in the year, all pigs and goats “found at large within the city limits” were to be deemed nuisances and impounded by the “presiding officer” for a period of seven days before being sold at auction, unless a one pound penalty was paid.⁵⁹ Additional ordinances prohibited the depositing of “rubbish, filth, ashes or offal of any kind” into the public thoroughfares or into sewers, drains or streams, and “any offensive matter [running] from any manufactory, brewery, slaughter-house, [or] butcher’s shop.”⁶⁰

Clearly, the city envisioned by municipal and legislative councils was a clean and respectable one, but these ordinances allowed room for select animal bodies within city space – provided, of course, that their movement and behavior was properly policed and controlled by their preferably white, middle-class owners. Indeed, as Edmonds notes, “the anxious

⁵⁶ “Nuisances,” *The Daily British Colonist*, 5 September 1862.

⁵⁷ *Ibid.*

⁵⁸ “City Ordinances,” *The Daily British Colonist*, 24 September 1862.

⁵⁹ *Ibid.*

⁶⁰ *Ibid.*

development of [Victoria] reflected the uneasiness of the colonial project itself: who would and would not be considered full members of this ideally white polity was mirrored in exclusions in the streetscape.”⁶¹ The early bylaws also underscored the primacy of private fee-simple property in the colonial worldview: in the estimation of the new city councilmen, the damage inflicted on ratepayers’ property outweighed the financial losses incurred by animal owners if their nonhumans were to come into conflict with real estate. “Property relations,” Edmonds notes, “were constructed quickly through rhetorical celebrations of making a white, civilized British space.”⁶²

Two years later, Victoria’s founding ordinances were subject to further discussion, when the colonial Legislative Council went to committee to amend the Act of Incorporation. Among discussions of proper terminology between “by-laws” and “ordinances,” and around gas meters and standardization of weights and measures, the institution of a city pound took up a large proportion of the proceedings. While in agreement regarding goats and hogs, the colonial councilmen universally opposed restrictions on the movement of household milch cattle through public streets and thoroughfares. John Helmcken maintained that “if a pound keeper saw fit to seize the cows which graze round the city limits, by which this famous city is supplied with milk and butter, it would hardly be a proper thing.”⁶³ Councilman Selim Franklin agreed, noting that “it did not necessarily follow that the council would pass a law preventing cattle from being at large in *all* portions of the city.”⁶⁴ In further proceedings, Helmcken was adamant that the words “for hogs and goats” be included in the phrasing, highlighting the selective process by which animal bodies were allowed and disallowed from the burgeoning urban space by these urban

⁶¹ Edmonds, *Urbanizing Frontiers*, 15.

⁶² *Ibid.*

⁶³ “Incorporation Bill,” *The Daily British Colonist*, 31 March 1864.

⁶⁴ *Ibid.* Emphasis in original.

elites – pigs and goats, understood as they were through the lenses of class, race and property, were restricted from city streets, but the same would not extend to more valuable (and less “morally objectionable”) milch cattle, sheep, and horses. Indeed, as the *Colonist’s* coverage of the council meeting records, “with regard to impounding cattle and horses, [Helmcken] thought there was very little objection to their being in the streets; [compared] to pigs and goats and such wretched animals, *which corrupt the morals of the population.*”⁶⁵ The legislative council further entrenched this selective categorization eight months later, when the colony’s leadership prominently displayed a proclamation at Government Square, notifying hog owners that “any unlucky porkers found disporting themselves in the sacred precincts of the Colonial buildings will be summarily shot by police.”⁶⁶

Early municipal and colonial administrators counted on Victoria’s continued growth to consolidate their vision of settler space, but the booming property market, immigration, and associated economic prosperity that came with the gold rushes could not last. As discouraged American miners returned south, the city suffered a population exodus, coupled with a crippling economic depression. Emily Carr, in a telling metaphor, remembers Victoria as a “lying-down cow, chewing.”

She had made one enormous effort of upheaval. She had hoisted herself from a Hudson’s Bay Fort into a little town, and there she paused, chewing the cud of imported fodder, afraid to crop the pastures of the new world for fear she might lose the good flavor of the old to which she was so deeply loyal. Her jaws went on rolling on and on, long after there was nothing left to chew.⁶⁷

⁶⁵ “Incorporation Bill,” *The Daily British Colonist*, 31 March 1864.. Emphasis added.

⁶⁶ “Heavy on Hogs,” *The Daily British Colonist*, 9 December 1864.

⁶⁷ Carr, *The Book of Small*, 139.

City lots were thus sold or abandoned by property speculators through the late 1860s and 1870s as they returned south or relocated to growing settlements on the Fraser delta, and many livestock owners took advantage of grass and other vegetation growing long in a patchwork of vacated properties across the city and in its outskirts to feed their animals. Urban foragers such as hogs were once again released into the streets, causing havoc through their feeding habits. One notable example in 1866 saw “a herd of swine” near “the lager bier establishment on Government street” eating “a quantity of sediment that had accumulated in the vats.” The pigs, it seems, became intoxicated, and “the entire herd fell and slept until the effects had disappeared, when they snuck off, seemingly much ashamed.”⁶⁸

Urban animals did not just frequent the city core, either. The peripheries of the town had long been the domain of cattle, who pushed town boundaries outwards through their free-range grazing and furthered the process of dispossession instigated by HBC and PSAC cattle twenty years previous. Indeed, Carr remembered the area beyond Victoria’s urban grid as the epitome of nonhuman space. “It was the cows who laid out the town, at least that portion of it lying beyond the few main streets,” she writes. “Cow hooves hardened the mud into twisty lanes in their meanderings to and fro – people just followed in the cows’ footsteps.”⁶⁹ Yet these free-ranging cattle soon raised the ire of new property owners who had bought land further from the town center during the booming gold rush days, one of whom wrote to the *Colonist* in September of 1863. “The cattle in the outskirts of Victoria are the greatest nuisance at this season of the year,” complained the subscriber, signing his letter ‘A SUFFERER.’⁷⁰ “[They] are driven nearly crazy for want [of food and water], and unless your fence is of the strongest and best description, your

⁶⁸ “As Drunk as A Pig!” *The Daily British Colonist*, 25 August 1866.

⁶⁹ Carr, *The Book of Small*, 139-140.

⁷⁰ “The Pound Law and Its Opponents.” *The Daily British Colonist*, September 9, 1863.

garden and premises are liable to invasion by a miserable lot of starved brutes.”⁷¹ These cattle fed on unwholesome garbage, the citizen grumbled – “filthy straw from chickens’ nests, potato and pea haulms, the contents of swill barrels and other truck that only pigs or goats would be supposed to eat, is greedily consumed.”⁷² The establishment of a city pound, to this plaintiff, seemed to be the only solution: “if a proper pound law is passed, and some resident *who already has the means of subsistence* is selected for [poundkeeper], it should be no expense to the revenue.”⁷³

In July 1868, after four years of discussion and hundreds of taxpayer complaints from “A Sufferer” and other property owners, the Mayor and Council finally instituted a pound for the “impounding of Swine, Goats, and Dogs found at large or straying within the limits of said City.”⁷⁴ The act provided for the appointment of a poundkeeper, who would be formally responsible for capturing and impounding any pig or goat running at large in the streets at a salary of \$500 per year.⁷⁵ Yet the bill also included unlicensed dogs in the poundkeeper’s mandate. Dog licensing had been introduced earlier that year to help raise revenue for the city’s beleaguered coffers – dog owners were taxed one pound per year and were expected to provide proof of payment in order to release their impounded canines. The poundkeeper was obliged to post a notice in writing at the gates of the city pound, as well as at the office of the Clerk of the Municipal Council, describing the animals impounded.⁷⁶ If owners did not collect animals and pay poundage fees in three days, dogs were subject to auction. If they were not sold, “such dogs

⁷¹ “The Pound Law and Its Opponents.” *The Daily British Colonist*, September 9, 1863.

⁷² *Ibid.*

⁷³ *Ibid.* Emphasis in original.

⁷⁴ “POUND BY-LAW,” *The Daily British Colonist*, 31 July 1868.

⁷⁵ *Ibid.*

⁷⁶ *Ibid.*

[would] be destroyed or otherwise disposed of as the said mayor by writing under his hand shall direct.”⁷⁷

The next year, the City Council revised the Municipal Pound Bylaw to provide for “the impounding of swine, goats, horses, horned cattle, and dogs found at large and straying within the limits of the city; and [to] declare such animals to be a nuisance.”⁷⁸ The updated bill notably added horned cattle and stray horses to its list of animals subject to ban, but still did not include milch cows. In an era before reliable long-distance transportation of dairy products, proximity of milk-producing cattle to consumers was imperative – urban milch cows were simply too valuable to too many of the city’s residents to regulate. “A great many people kept cows to supply their own families with milk,” Carr recalls, “[and] when their own pasture field was eaten down they turned the cow into the street to browse on the roadside grass along the edges of open ditches.”⁷⁹ Milch cattle had initially been included in the list of animals banned from the city’s streets, but the council’s hand was forced when they received three separate petitions signed by 135 citizens, and “praying that milch cows be exempted from the operation of the Pound By-law.”⁸⁰ These “poor residents” protested that they would be “compelled to sell them if the law be enforced in its current form.”⁸¹ In council proceedings the next day, the mayor opined that “he would like very much to see the poor people keep their milch cows,” but also needed to consider the “nearly two hundred complaints...made to the Corporation of damages done by cows to gardens.”⁸²

Despite the mayor’s protestations, milch cattle appear to have been largely exempt from the poundkeeper’s clutches, enjoying a *de facto* freedom to graze in the city’s common spaces

⁷⁷ “POUND BY-LAW,” *The Daily British Colonist*, 31 July 1868.

⁷⁸ “The Municipal Pound By-law,” *The Daily British Colonist*, 7 August 1869.

⁷⁹ Carr, *Book of Small*, 133.

⁸⁰ “Petition,” *The Daily British Colonist*, 12 August 1869.

⁸¹ *Ibid.*

⁸² “City Council,” *The Daily British Colonist*, 19 August 1869.

through the last decades of the nineteenth century. This arrangement may also have been compounded by problems of unenforceability – as Brinkley and Vitiello note, “[nineteenth-century] municipalities enforced regulation unevenly at best, and residents debated and resisted them.”⁸³ Agricultural statistics published in 1870 for the City and District of Victoria also estimated one cow for every six residents, stretching the limited resources of the city pound.⁸⁴ Whatever the primary reason, complaints continued to roll in through the 1870s.

These protests were many and varied, and often emanated from a landowning, middle-class segment of the city’s population. Many appealed to the common law category of ‘public nuisance’ in protesting the presence of livestock on or near their property. One such resident, “R.W.,” pointed out in a letter to the editor of the *Colonist* that “the sempiternal nuisance of [cows’] bells...is positively intolerable.”⁸⁵ The sound of cowbells, which had been used in English livestock husbandry for centuries in order to locate errant bovines, evidently kept the city’s residents up at night: “people have frequently got up in the middle of the night to drive the beasts away,” R.W. remonstrated, “but they are of course as [quick to] return.”⁸⁶ Another, under the pointed moniker ‘A Taxpayer,’ wrote that “cows roam about the streets and defile the sidewalks.”⁸⁷ He appealed to the civic responsibility of the ‘City Fathers,’ demanding “that the Corporation do their duty and carry out the strict letter of the law the Cattle Ordinance [*sic*]. If not, we will elect men that will do it.”⁸⁸ Subscriber ‘James Bay’ complained in 1876 of “bulls...allowed to run at all hours round the streets” of his eponymous neighborhood, while “Ratepayer” complained that milch cattle “make holes in the sidewalk and destroy property and

⁸³ Brinkley and Vitiello, “From Farm to Nuisance,” 115

⁸⁴ “AGRICULTURAL STATISTICS,” *The Daily British Colonist*, 25 June 1870.

⁸⁵ “The Kine Nuisance,” *The Daily British Colonist*, 11 September 1869.

⁸⁶ *Ibid.*

⁸⁷ *The Daily British Colonist*, 15 September 1869.

⁸⁸ *Ibid.*

frighten children.”⁸⁹ Henry Rhodes, a prominent merchant in the city and president of the Chamber of Commerce, called attention to “the continual annoyance” that he and his family were subjected to “by herds of cattle being permitted to run at large” near his extensive estate “Maplehurst” on Chatham Street in 1878:

On Sunday evening last there were some 17 or 18 head of cattle round my gate and fence, two of which were rushing around in a dangerous manner, so that some members of my family upon leaving the house to attend church were compelled to return and wait until the animals had passed. I consider it simply an outrage upon private citizens that such complaints should have been made time after time to a body such as your Corporation (composed of intelligent men) without the slightest redress being obtained...In conclusion, I would remark that in no other city in the world have I heard are cattle permitted to run at large unchecked and unheeded.⁹⁰

The accumulation of nuisance complaints about cows from all quarters of the city led the city council in 1878 to amend the pound bylaw, banning all “horned or other cattle, mules, asses, [and] all cows found with bells on within the city limits.”⁹¹ Milch cattle without loud bells, however, were subject to a licensing program – householders were to obtain licenses and tags for their vital animals, paying taxes on their cows as they would for their dogs.⁹² Further, milch cows were not completely barred from urban space. Victoria’s ratepayers voted on the establishment of “Cow Limits,” or city pound boundaries, in 1878, which delineated the “business center” of the city animal-free, but left all land north of Chatham Street, east of Cook

⁸⁹ “Bulls at Large,” *The Daily British Colonist*, 21 June 1876; “The New Pound By-law,” *The Daily British Colonist*, 21 September 1876.

⁹⁰ *The Daily British Colonist*, 13 June 1878

⁹¹ “Municipal Council: Pound By-law,” *The Daily British Colonist*, 15 August 1878.

⁹² “Municipal Pound By-Law,” *The Daily British Colonist*, 26 April 1879.

Street, south of Humboldt Street, and west of the Inner Harbour waterfront unrestricted for (licensed) grazing bovines.⁹³

Although cattle inflicted damage to private property, threatened children, and clogged urban and peri-urban thoroughfares with their leisurely grazing, they were simply too important to the colonial populace to subject to comprehensive pound legislation, as other species had been. Much as Frederick Brown argues in the context of nearby Seattle, the presence of milch cattle was not at odds with the progress narrative of colonial urbanity, and they in fact continued to play significant material and symbolic roles for city residents. “Cows were special,” he writes: “city dwellers saw the productive work of cows as vital to their livelihood and health.”⁹⁴ It would take more than a decade of population growth, citizen complaints, advances in epidemiology, and consolidation of dairy farms before a comprehensive 1893 pound bylaw would comprehensively ban free-ranging milch cattle from Victoria’s urban environment.⁹⁵

From inauspicious beginnings as a small fur-trading and agricultural settlement perched precariously on the southeastern tip of Vancouver Island, Victoria’s urban space grew and densified extensively across two decades. With this growth came a multiplication of bodies, both human and nonhuman, and the necessity of regulating their spatial relations, especially as spaces between them shrank with continuing settlement. Colonial and municipal legislators envisioned a clean, orderly, racially homogeneous and modern city, but found themselves forced to negotiate between animal desires and property ownership, subsistence needs and visions of middle-class progress and respectability. The presence of select animal bodies, it seems, did not run counter to

⁹³ “Proposed Pound Boundaries,” *The Daily British Colonist*, 17 September 1878.

⁹⁴ Frederick Brown, in *The City is More Than Human: An Animal History of Seattle* (Seattle: University of Washington Press, 2016): 85.

⁹⁵ The 1893 Municipal Pound Bylaw, under Mayor Robert Beaven, extended the pound’s purview significantly, banning horses, asses, mules, oxen, bulls, cows, cattle, swine, hogs, sheep, goats, geese, ducks and unlicensed dogs from city space. See “Pound By-law,” *The Daily British Colonist*, 15 November 1893.

these legislators' visions of modern colonial city building, provided that they were kept under proper control. Those that could not be easily controlled or did significant real or imagined damage to taxpayer property, such as goats and hogs, were quickly legislated out of urban existence and even shot in the streets. Those that provided valuable services to human residents, such as milch cattle and horses, were slower to face sustained legislative and police attention. The city's urban commons was a valuable asset to its citizens, a fact that councilmen recognized and sought to accommodate, even as pressure from a vocal class of landowners and ratepayers gradually forced them to reconsider the terms of urban animal presence. Yet a monumental change lay just around the corner. As new understandings of epidemiology and disease began to circulate through the knowledge networks of the Western world through the turn of the century, urban animal bodies would face increased scrutiny and a redoubled impetus for their exclusion from human space, instigating the long transformation of the city and its households from spaces of production to ones primarily of consumption.

“Death Lurks in the Milk Pail”:

*The Long Bacteriological Revolution, Tuberculous Cows, and the Regulation of
Victoria’s Milk Supply, 1890-1910*

In the autumn of 1872, over three thousand miles away from Vancouver Island, a mysterious illness erupted among horses stabled in the Ontario townships of York, Scarborough, and Markham.¹ The sickness, dubbed “The Great Epizootic of 1872” by the popular press, rapidly infected the majority of the local equine population before spreading to the major Canadian city of Toronto. Now speculated to be a particularly virulent strain of influenza A, the disease caused “oozing nostrils and hacking coughs” and effectively brought the horse-dependent urban commerce of the nineteenth century metropolis to a standstill. Tram lines and market deliveries ground to a halt, food shortages loomed, and streets lay emptied of equine life. The contagion coursed along the railways and major transportation routes tying the Canadian metropolis to interconnected urban hubs in the American Northeast, before spreading quickly through the Midwest and South. All told, over the next year, the epizootic appeared in 164 Canadian and American cities and towns and affected “nearly all horses.”² By early 1873, it reached the Pacific Coast, infecting hundreds of animals in San Francisco and Portland – butchers in the former, faced with a shortage of horsepower, “hired...Chinamen” to haul meat

¹ Sean Kheraj, in “The Great Epizootic of 1872-73: Networks of Animal Disease in North American Urban Environments.” *Environmental History* 23, no. 3 (July 2018): 495.

² *Ibid.*, 500.

wagons.³ The Great Epizootic was, by one account, “the most explosive equine [epizootic] ever documented.”⁴

The compressed travel times afforded by an expanding post-Civil War North American rail network meant the disease spread more quickly than any contemporary expected, even as municipal governments struggled to contain it. Meanwhile, on the southern tip of Vancouver Island, municipal authorities watched the spread of the disease with apprehension. Rumors that the epizootic had spread to the port city arose frequently, especially after it appeared in San Francisco in 1873, and in May the city council moved to “prohibit the importation of horses and mules into [the] Province until such time as the distemper shall have passed away.”⁵ By August, however, the equine illness seemed to abate: “The epizootic is disappearing,” wrote one commentator with evident relief.⁶ Although Victoria emerged relatively unscathed from the episode, sea changes were on the horizon with regards to public health in the growing city.

The Great Epizootic of 1872 graphically illustrated for many North American urban administrators the animal-borne danger that threatened the health of their constituents, as well as the consequences of their shared reliance on nonhuman bodies in city spaces. While the equine influenza did not reach Victoria, halted in large part by a lack of rail infrastructure connecting the city to other urban cores as well as by virtue of the city’s island location, its rapid spread and high infection rate reflected the broader interconnection of disease pools between networked urban spaces across North America. It also directed increased scrutiny toward the complex

³ “California,” *The Daily British Colonist*, 2 May 1873.

⁴ David M. Morens and Jeffery K. Taubenberger, in “Historical Thoughts on Influenza Viral Ecosystems; or Behold a Pale Horse, Dead Dogs, Failing Fowl and Sick Swine.” *Influenza and Other Respiratory Viruses* 4, no. 6 (2010): 331.

⁵ “The Epizootic,” *The Daily British Colonist*, 3 May 1873.

⁶ “Lower Fraser,” *The Daily British Colonist*, 28 August 1873.

assemblages and many shared spaces of humans and nonhumans in nineteenth-century cities, pointing toward animal bodies as potent vectors for the spread of disease and infection.

This chapter focuses on a very different disease, however, with a different means of transmission: bovine tuberculosis. Despite their ostensible differences, many similar dynamics were at play between the Great Epizootic and the so-called “White Plague.” With a gradual change in understandings of public health that came with new insights of bacteriology, ways of viewing disease shifted focus from filth, stench and miasma to the unseen – and unseeable – world of germs, bacteria, and viruses. In this epistemic shift, the knowledge and authority of medical health officers, sanitary inspectors, and veterinarians became paramount to the preservation of the public health. As a result, heightened expert scrutiny was placed on bodies and spaces that suddenly seemed likely reservoirs of disease, while sanitary reform grew increasingly tied to modernizing progress discourse and the wider project of middle-class moral uplift in urban areas. Activist legal and bureaucratic structures directed by sanitary reformers and medical authorities focused attention on pure food supplies – and especially milk – as a means to build a healthy city, province and nation. Resulting legislation and its enforcement would gradually render private production, urban subsistence livelihoods, and city livestock threats to the sanitary, moral, and future-oriented city space envisioned by council members, health authorities, and concerned citizens alike. The consolidation of larger co-operative and privately capitalized dairies that adhered to stringent public health regulations then gradually moved milk production and processing outside the city limits – and with it, the city’s milch cattle. The urban household over the turn of the century thus became increasingly a site of consumption over production, as the application of expert medical knowledge to issues of public health began to effect a widening urban-rural divide, placing producers and consumers at greater and greater

distance from one another and reinforcing a conceptual as well as spatial delineation between ‘city’ and ‘country.’

Urban animals and their products had long been suspected of contributing to the spread of disease in Victoria and other North American cities. Dominant medical understandings of disease transmission through the first decades of the city’s growth hinged on the Galenic ‘miasma’ (or ‘filth’) theory, which typically proposed that gases released from decaying organic matter, “effluvia,” and foul-smelling air were causative factors for disease.⁷ Thus, early efforts toward sanitation in Victoria focused on stinking street gutters, privies and drainage channels that were, in the words of an 1861 Grand Jury report, “choked with putrescent filth.”⁸ Animal manure collected in the streets of the city as horses, cattle, and free-ranging pigs roamed the city, donating to “the filthy condition of the streets” that the jury characterized as “foul in the extreme” and “[perilous to] the health of the inhabitants.”⁹ This miasmatic understanding of disease was also central in shaping the city council’s early zoning efforts – the slaughterhouse ban that came with Victoria’s incorporation was largely due to the “offensive matter” that ran from the city’s animal processing establishments. Distilleries and tanneries were subject to similar relocation due to ‘noxious odors’ and an assumed concurrent propensity to spread disease.¹⁰ Social and legislative attention did not only focus on industrial processing, however – problematic use of city space for household agriculture and livestock husbandry also faced heightened scrutiny. *Colonist* editor D.W. Higgins, for example, characterized the infamous Johnson street gully in scathing terms in 1867:

⁷ L. Fabian Hirst, in *The Conquest of the Plague: A Study of the Evolution of Epidemiology* (Oxford: Clarendon Press, 1953): 37.

⁸ “Grand Jury,” *The Daily British Colonist*, 9 November 1861.

⁹ *Ibid.*

¹⁰ Martin V. Melosi, in *The Sanitary City: Urban Infrastructure in America from Colonial Times to Present* (Baltimore: Johns Hopkins University Press, 1999): 21.

The Johnson street ravine has degenerated into a receptacle for defunct members of the canine and feline families, decaying odds and ends, and malarious soil. On the principle that ‘out of sight is out of mind,’ every offensive object too nasty to be tolerated in any other locality is hurled into the depths of the pellucid stream and left there to fester and corrode and rot.... Though out of the eye, the corrupt fagends of animal and vegetable matter have not failed to appeal to at least one sense – that of smelling.... Numerous have been the learned essays penned by local pundits, on the importance of adopting stringent hygienic measures to avert the awful effect resulting from the constant inhalation of carbonic gas upon the human system.¹¹

With medical understandings tying stench and miasma to illness and contagion, Victoria’s urban citizens tended to construct olfactory geographies – what historian Melanie Kiechle calls “smellscapes” – that functioned as mental maps with which to navigate the city.¹² These mental, spatial catalogues allowed citizens to structure their movement through urban space to avoid harmful odors, protecting themselves from the inhalation of “carbonic gases” or “effluvia” that was commonly linked to the spread of disease. One example of this sort of smellscaping comes from the reminiscences of Emily Carr, who remembers that:

From our own gate to the James’ Bay Bridge wild rose bushes grew at the roadsides nearly all the way and their perfume was delicious. Then we came to the mud flats and our noses hurt with its dreadfulness when the tide was out. We had no sooner got over that than there was Chinatown with stuffy, foreign smells. Then came the gas-works – this smell was said to be healthful but it was not nice. Rock Bay Bridge had more low-tide smells, which were made easier by a saw-mill; the new sawdust smelled so nice you forgot your nose until the other side of the bridge came. There sat a tannery from which came, I

¹¹ *The Daily Colonist*, 12 September 1867.

¹² Melanie Kiechle, in “Navigating by Nose: Fresh Air, Stench Nuisance and the Urban Environment, 1840-1880.” *Journal of Urban History* 42, no. 4 (2016): 754.

thought, the worst smell of them all. There was one still more dreadful – Parker’s slaughter-house and piggery – but that was two miles further on.¹³

The experience of urban stench, linked as it was to broad conceptions of “healthful” and unhealthy spaces, meant that many Victorians negotiated city space to avoid certain areas – most notably crowded immigrant communities in the downtown core and industrialized areas near Rock Bay and along the Gorge waterway that were home to “offensive business[es].”¹⁴ Indeed, as Kiechle notes, zoning and legislation sought to “order the smellscape, attempting to move stench-producers and their nauseating fumes from the most populous areas of the city,” while also creating space for public parks and green spaces as respites from the health-threatening olfactory geographies of industrializing cities.¹⁵

Some stenches, however, were more difficult to evade. The corpses of nonhumans, lying *in situ* on street corners and in vacant lots throughout the city, raised the specter of transgressive disease and embodied what historian Andrew Wells calls “zombie liminality.”¹⁶ The assumed propensity for these animal bodies to transmit infection from ‘beyond the grave’ via miasmatic decomposition encouraged their prompt removal, and sanitary officers were consistently called upon to remove nonhuman corpses from vacant lots, street corners, and watercourses as the city’s human and animal populations grew apace. And grow they did. Following the population exodus and economic slump following the gold rush years, Victoria’s demographic growth began again in earnest during the first years of the 1880s. A steady rate of immigration through the decade brought around one thousand settlers per year, and the city gradually grew and

¹³ Carr, *Book of Small*, 148-149.

¹⁴ “Report,” *The Daily British Colonist*, 9 September 1862.

¹⁵ Kiechle, “Navigating by Nose,” 763.

¹⁶ Andrew Wells, “Antisocial Animals in the British Atlantic World: Liminality and Nuisance in Glasgow and New York City, 1660-1760” in *Animal History in the Modern City: Exploring Liminality*, Clemens Wischerman, Aline Steinbrecher and Philip Howell eds. (London: Bloomsbury Academic Press, 2019): 61.

industrialized to match the augmented population. Indeed, between 1881 and 1891, by city historian Terry Reksten's estimate, the city population "grew by more than 10,000, from 5,925 to 16,841." As the city developed, she notes, "so did the problems of [waste] removal."¹⁷

Within the context of miasma and its intrinsic connection to disease, urban crowding and multispecies streets, the now-familiar legal category of 'public nuisance' was usually evoked to remove assumed sources of disease from shared urban spaces. Aggrieved petitioners typically wrote communications to the city council to complain of nuisances and the city council, after deliberation, dispatched police and municipal sanitary officers to remove them. The lines between categories of public nuisance and public health were thus often blurred. For example, in 1866 Victoria's municipal council received a report from the Sanitary Commission citing "over 180 cases of nuisance, of which some 50 or 60 [they] had attended to."¹⁸ By 1892, the number of nuisances reported by the Sanitary Commission had climbed to 2,500, evincing a mode of 'mission creep' that saw sanitary institutions take on a broader role in social policing.¹⁹

Public health in tightening city spaces thus began to dovetail with issues of private property rights and appropriate uses of common space. When the city's first public health ordinance was passed in late 1868, it firmly (and expansively) defined the role of medical authorities in combatting the spread of disease. The legislation conferred upon a central Board of Health jurisdiction over "all matters relating to drains, sewers, pig-styes, slaughter-houses, unwholesome food, noxious or offensive trades, epidemic, endemic or contagious diseases or disorders, and all matter relating to [q]uarantine vessels and boats entering any port or river in

¹⁷ Terry Reksten, in *More English Than the English: A Very Social History of Victoria* (Victoria: Sono Nis Press, 2011): 118.

¹⁸ "Municipal Council," *The Daily British Colonist*, 11 September 1866.

¹⁹ Provincial Board of Health of British Columbia. *First Report of the Provincial Board of Health of British Columbia* (Victoria, BC: Wolfenden Press, 1895): 534.

the Colony.”²⁰ The board of health had the ability to enforce compliance through appeal to Victoria’s constabulary, or by way of a sliding scale of fines between \$50 and \$500 – steep prices to pay for many urban residents.²¹ The board’s expansive mandate reflected the wider state of Victoria’s common spaces through years of growth. General pollution, including water contamination, solid waste accumulation and a lack of efficient sewage disposal rendered the city filthy, difficult to traverse, and subject to frequent outbreaks of waterborne and airborne disease.²²

This new legislation thus vested medical and sanitary authorities with extreme power to shape and surveil common spaces in the name of sanitation and public health, combatting “numerous health destroying nuisances” with “vigorous sanitary and hygienic measures.”²³ These measures could be invasive and were shaped by increasingly prevalent racialized assumptions of moral and physical cleanliness, involving slum clearances in crowded downtown tenements, forced relocations of urban livestock, and destruction of property. 1868 saw sanitary officers “thoroughly cleanse” and whitewash “all the small tenements, hitherto occupied by Indians in the lower portions of the city” and had “the rubbish and nuisances about them removed and burned.”²⁴ Chinese residents were ordered to relocate their pigs from “the [Johnson street] ravine” in the 1870s, with city council asserting that “if the Chinamen living near the ravine do not remove their hogs[,] they be summoned before the Magistrate.”²⁵ Surveillance would continue to tighten over the last decades of the nineteenth century, as numerous amendments to the city’s public health by-laws permitted sanitary inspectors access to any

²⁰ “PUBLIC HEALTH ORDINANCE,” *The Daily British Colonist*, 1 January 1869.

²¹ *Ibid.*

²² The city faced several disease outbreaks through the nineteenth century, including (but not limited to) measles and influenza in 1858, smallpox in 1862, measles from 1886-1888, and scarlet fever and measles in 1894.

²³ “The Public Health,” *The Daily British Colonist*, 25 August 1868.

²⁴ “Small Pox,” *The Daily British Colonist*, 16 October 1868.

²⁵ “Hogs,” *The Daily British Colonist*, 29 May 1873.

property “upon the receipt by the Sanitary Committee or the Mayor’s office a notice signed by two or more ratepayers of the City, stating the condition of any building to be so filthy as to be a nuisance or injurious to health.”²⁶ Any person “guilty of infraction” of any of these bylaws was liable to pay up to \$50 in damages, or, if funds could not be secured, sentenced to imprisonment “with or without hard labor” for up to three months.²⁷

This process of neighborly surveillance saw the city’s ascendant property-owning middle class take the shaping of urban space into their own hands, delivering petitions to city council in order to enforce their own vision of a sanitary, nuisance-free, and racially homogenous metropolitan space. For example, a series of petitions in 1884 called the council’s attention to “a piggery, owned by Tai Soong & Co. on the Indian reserve” as well as “cow-houses” on Yates Street, and “a fish-curing establishment” on Fort Street.²⁸ These establishments lowered surrounding property values and evoked the specter of disease through their association with filth and stench, and thus, to the rate-payers of Victoria, warranted the attention of the city’s sanitary enforcers. Indeed, as Lefebvre notes, “city [space was] transformed ... in relation to profound transformations in the mode of production... and in the relations of class and property.”²⁹ As members of an influential, property-owning middle class began to enforce their vision of city space through legal avenues and sanitary discourse in Victoria, urban livestock husbandry fell squarely within their sights.

Slaughterhouses posed another thorny medical issue for Victoria’s increasingly powerful sanitary board, especially as city limits were extended by an act of council in 1873.³⁰ Animal

²⁶ Edwin Johnson, ed. *The By-laws of the Corporation of the City of Victoria, British Columbia, 1889* (Victoria: Cohen’s Printing Office, 1890): 60.

²⁷ *Ibid.*

²⁸ “Court of Assize,” *The Daily British Colonist*, 29 November 1884

²⁹ Henri Lefebvre, “The Right to the City” in *Writings on Cities* [trans. Eleonore Kofman and Elizabeth Lebas] (London: Blackwell, 1996): 30

³⁰ *The By-laws of the Corporation of the City of Victoria, British Columbia, 1889*, 31.

processing facilities located outside the city limits in compliance with Victoria's nuisance ordinances were suddenly resituated within municipal jurisdiction as the urban expanded into the rural, caught in a process that Wells characterizes as a "cycle of expulsion and reabsorption."³¹ The zombie liminality of these 'noxious industries' within redrawn city boundaries attracted the attention of Chief Justice Matthew Baillie Begbie at Victoria's spring assizes in May 1877. The eminent judge, the *Colonist* records, "wished to point out...that slaughterhouses existed in the vicinity of the city[,] and that from these places pools of animal and vegetable matter emanated such as were at an time likely to breed fever and disease."³² Nothing, he declared, "contributed to the spread of disease and fevers than a collection of putrid animal and vegetable matter" – and he was especially concerned that "within a few hundred yards of the public school there existed a slaughterhouse, from which the effluvia was perfectly horrible and was likely at any time to carry disease to every family in the city."³³

In the future-oriented context of Anglo settler society, animal-borne threats to the wellbeing of the city's children and families also threatened the utopian colonial future that many envisioned – similarly, somewhat ironically, to the threat to the natural increase of livestock that preoccupied HBC administrators twenty years earlier. Fears of miasma and disease originating in animal bodies thus largely dictated early zoning regulations and public health legislation (and enforcement), even as the precise means of transmission was not clearly understood. Yet a new paradigm ushered in by advances in bacteriology would begin to alter the ways that public health was envisioned in the late nineteenth-century city, redoubling attention on the nonhumans that

³¹ Wells, "Antisocial Animals in the British Atlantic World," 64.

³² "Spring Assizes," *The Daily British Colonist*, 17 May 1877

³³ *Ibid.*

moved through, labored for, and fed urban populations on Vancouver Island, and contributing to their gradual removal from city space over the next three decades.

Five years after Begbie's admonition, in 1882, German physician and researcher Robert Koch made a startling discovery in the Berlin laboratory of the Imperial Department of Health. Koch was a product of a long Western bacteriological 'revolution' that began to form in the wake of mid-century contagion studies conducted by British physician John Snow and later work of French microbiologist Louis Pasteur.³⁴ The growing field of bacteriology, spurred by technological advances in microscope technology, slowly began to chip away at hegemonic understandings of disease transmission as attributable to various environmental factors such as miasma.³⁵ Instead, this emerging epidemiological understanding – 'germ theory' – tied the expression of disease to the presence of microscopic bacteria, which could be isolated, grown and studied in laboratory settings.³⁶ Koch visited many of Germany's leading scientific establishments through the mid-1870s, observing the new research conducted within this paradigm.³⁷ His first major breakthrough came with the discovery and documentation of the anthrax bacillus, which he tied to a disease responsible for the deaths of countless livestock and humans in continental Europe and England. Koch was able to link the presence of rod-shaped anthrax bacilli to outward expressions of the disease and published his findings to much acclaim in 1876.³⁸ As his work progressed through the next half decade, Koch pioneered methods to fix

³⁴ Steve M. Blevins and Michael S. Bronze, in "Robert Koch and the 'Golden Age' of Bacteriology." *International Journal of Infectious Diseases* 14 (2010): 745.

³⁵ Patricia Peck Gossel, in "Pasteur, Koch, and American Bacteriology." *History and Philosophy of the Life Sciences* 22, no. 1 (2000): 82.

³⁶ Robert Gaynes, "Robert Koch and the Rise of Bacteriology," in *Germ Theory: Medical Pioneers in Infectious Diseases* (Washington, D.C.: ASM Press, 2011): 173.

³⁷ Gaynes, *Germ Theory*, 180.

³⁸ Blevins and Bronze, in "Robert Koch and the 'Golden Age' of Bacteriology," 745.

and dye bacteria in sterile growth mediums like agar gel and was instrumental in identifying various stages of disease at a microscopic level.³⁹

By the early 1880s, Koch had turned his attention to tuberculosis, a disease that was thought to be responsible for one in seven deaths across the globe at the time.⁴⁰ As historian Katherine McCuaig notes, the disease had long been considered “largely incurable and probably inherited,” but Koch suspected that the disease had a bacterial origin.⁴¹ After identifying the tuberculosis bacillus in laboratory trials through an innovative staining technique, Koch inoculated over two hundred animals with the isolated bacteria, which rapidly led to the development of tuberculous tissue “in every case.”⁴² Further experiments showed that the presence of the bacilli in human tissue was correlated with pulmonary and non-pulmonary tuberculosis, and that saliva and bodily fluids were capable of carrying large amounts of the bacilli, even when dried for weeks.⁴³ Mass sanitation drives quickly followed Koch’s presentation of research in March 1882, leading to a fundamental change in the way public health was understood in urban contexts. As medical historians Steve Blevins and Michael Bronze note, “tuberculosis was now recognized as a public health problem requiring strategies to prevent its transmission.”⁴⁴ No longer solely a reaction to the development of environmental miasma through human and nonhuman pollution, public health initiatives would begin to take on a preventive character, addressing disease early and at the level of the individual in the hopes of pre-empting its deadly spread.

³⁹ Gaynes, *Germ Theory*, 182.

⁴⁰ E. Cambau and M. Drancourt, in “Steps Toward the Discovery of *Mycobacterium Tuberculosis* by Robert Koch.” *Clinical Microbial Infections* 20 (2014): 199.

⁴¹ Katherine McCuaig, in *The Weariness, the Fever, and the Fret: The Campaign Against Tuberculosis in Canada, 1900-1950* (Montreal and Kingston: McGill-Queen’s University Press, 1999): 4

⁴² Blevins and Bronze, “Robert Koch and the ‘Golden Age’ of Bacteriology,” 747.

⁴³ Blevins and Bronze, “Robert Koch and the ‘Golden Age’ of Bacteriology,” 747.

⁴⁴ Ibid.

Robert Koch's influential findings would gradually disseminate through the global networks afforded by an increasingly interconnected knowledge economy in the Western colonial world, transforming public health initiatives in growing North American cities even as older conceptions of environmental causation held remarkable staying power.⁴⁵ Eight years later, Koch made another breakthrough when he extracted tuberculosis bacteria and patented tuberculin, a purified protein derivative, which was effective in detecting the bacteria when injected into the skin of suspected sufferers.⁴⁶ Although Koch's attempts to monetize his discovery led to scandal, and although the injection of the protein into sufferers did not halt the spread of the disease as he had originally hoped, the discovery of tuberculin provided a means to diagnose the disease quickly and efficiently, and was broadly employed by veterinary scientists and medical health officers to confirm suspicions of disease in human and animal sufferers.⁴⁷

The 1890 discovery and dissemination of tuberculin through the Dominion of Canada placed enhanced scrutiny on animal bodies in urban spaces, especially those that provided meat and milk to growing city populations. In British Columbia, one manifestation of this redoubled attention came in the form of the B.C. Department of Agriculture, formed in 1891 under Provincial Minister of Agriculture J.H. Turner. The livestock inspection branch of the Department, initially led by provincial inspector and veterinary scientist F.S. Roper, worked in close coordination with local authorities to inspect cattle ranches, urban dairying outfits, and stables across Vancouver Island and the British Columbia mainland to ensure the purity of food

⁴⁵ Mitchell V. Palmer and W. Ray Waters, in "Bovine Tuberculosis and the Establishment of an Eradication Program in the United States: Role of Veterinarians." *Veterinary Medicine International* (2011): 4.

⁴⁶ Gaynes, *Germ Theory*, 195.

⁴⁷ *Ibid.*, 199.

and milk supply and assuage consumer concerns.⁴⁸ A growing disquiet expressed through the reports involved one disease in particular: bovine tuberculosis.

Bovine tuberculosis (*Mycobacterium bovis*) is a strain of the disease that affects cattle and a wide range of other mammals – the disease has “one of the broadest host ranges of all known pathogens” and has been diagnosed worldwide.⁴⁹ Infection with the tuberculosis bacteria causes lesions in lymph, lung, spleen and liver tissue as well as nodular bacterial growths called tubercles. The disease is capable of ‘jumping the species barrier,’ and is communicable to humans by ingesting the raw milk of infected cattle, as well as through inhaling aerosolized droplets of saliva, urine, or feces often found in farmyard dust.⁵⁰ Symptoms in humans and cattle include weakness, loss of appetite (and concurrently weight), a fluctuating fever, intermittent hacking cough, diarrhea, and enlargement of lymph nodes in the neck and thorax.⁵¹ The disease disproportionately impacts children – recent studies have shown that in the era before reliable treatment of the disease was possible through streptomycin and artificial pneumothorax, the fatality rate for infected children between the ages of one and fourteen was over twenty percent.⁵² The course of the disease is slow, with extended periods of latency possible; it can take

⁴⁸ For examples of Roper’s work, see *Reports of the Department of Agriculture of the Province of British Columbia* (Victoria: Wolfenden Press), 1891-1896. Roper conducted wide-ranging surveys across the interior of British Columbia and through the settled districts on Vancouver Island’s east coast, and submitted reports to the Department each year, which often took narrative form and detailed his experiences and interactions with farmers and dairymen while tuberculin testing their animals.

⁴⁹ Margaret Good and Anthony Duignan, in “Perspectives on the History of Bovine TB and the Role of Tuberculin in Bovine TB Eradication.” *Veterinary Medicine International* (2011): 1. Bovine tuberculosis, while capable of ‘jumping the species barrier’ from cattle to humans, can also infect goats, pigs, sheep, horses, cats, dogs, fennec foxes, deer, bison, badgers, possums, hares, ferrets, wild and feral pigs, antelope, Arabian Oryx, camel, llama, alpaca, primates, lions, hyenas, kudu, baboons, leopards, cheetahs, warthogs, elk, coyotes, meerkats, black rhinoceros and lynxes.

⁵⁰ *Ibid.*, 3.

⁵¹ Alan L. Olmstead and Paul W. Rhode, in “An Impossible Undertaking: The Eradication of Bovine Tuberculosis in the United States.” *The Journal of Economic History* 64, no. 3 (September 2004): 737-738.

⁵² Helen E. Jenkins, Courtney M. Yuen, Carly A. Rodriguez, Ruvandhi R. Nathavitharana, Megan M. McLaughlin, Peter Donald, Ben J. Marais, and Mercedes C. Becerra, in “Mortality Among Children Diagnosed with Tuberculosis: Systematic Review and Meta-Analysis.” *The Lancet Infectious Diseases* 17, no. 3 (2017): 285.

months or years for an animal to express overt symptoms, increasing the disease's propensity to spread.⁵³ "While for some months a cow reacting to the tuberculin test may remain sleek and give abundant milk," wrote Canadian pathologist and later president of the Canadian Association for the Prevention of Tuberculosis, J. George Adami, near the turn of the century, "sooner or later the disease progresses."⁵⁴ Indeed, as Professor J.H. Reed of Guelph, Ontario's Dominion Agricultural College noted to the B.C. Provincial Board of Health in 1895, "I consider [tuberculosis] the most dangerous disease of all in regard to cows, as on account of its insidiousness it may be present in an animal for a long time without showing any well-marked diagnostic symptoms."⁵⁵

The relative invisibility of bovine tuberculosis to the layman thus cast suspicion on the numerous milch cattle scattered throughout the city's properties and mid-size private dairies that began to form through the latter decades of the nineteenth century in the city's peri-urban space. Any of these cattle, worried public health officials and citizens alike, harbored the potential to infect multitudes of milk drinkers with 'consumption.' In May of 1894, the *Colonist* drew readers' attention to what it characterized as "The Great Scourge," noting that "tuberculosis is frequent in cows; [the] milk of tuberculous cows may contain the bacilli, even when the udder is not infected; [when] the udder is affected the milk invariably contains tubercle bacilli; and whenever affected it is dangerous."⁵⁶ Newspaper coverage pointed toward the threat impure milk posed to the city's youth, evoking an "appalling tide of infant mortality" that had flooded countries across the globe and "cost the Dominion of Canada...15,000 lives [a year] under the

⁵³ Olmstead and Rhode, "An Impossible Undertaking," 738.

⁵⁴ J. George Adami, in "On the Significance of Bovine Tuberculosis and its Eradication and Prevention in Canada." *The Canadian Journal of Medicine and Surgery* (December 1899): 4.

⁵⁵ Provincial Board of Health of British Columbia. *First Report of the Provincial Board of Health of British Columbia* (Victoria, BC: Wolfenden Press, 1895): 537.

⁵⁶ "The Great Scourge: Animal Tuberculosis and its Relation to the Public Health – An Interesting Topic," *The Daily British Colonist*, 29 May 1894.

age of five.”⁵⁷ Public health officials’ worries seemed to be substantiated at the end of August 1894, when one case of bovine tuberculosis was found in “a bull, [that] was killed by the inspector’s order.”⁵⁸ Several other cows “supposed to be infected” were placed under quarantine and observation. The “White Plague” had reached Victoria.

Three months later, Roper launched a wide-ranging, meticulous study of the city’s dairy herds, applying the tuberculin test to each cow and reporting his results to the Department of Agriculture. He found that “in the vicinity of Victoria the disease...exist[ed] in six different herds,” and placed “63 animals ...under quarantine.”⁵⁹ In his report for the year, Roper noted that “[tuberculosis] has been found to be very prevalent in the vicinity of Victoria, and many cattle were slaughtered” with their owners’ consent.⁶⁰ The presence of tuberculosis bacilli in the city’s dairy supply also caught the attention of George Duncan, Victoria’s medical health officer, in 1895. He proposed a system of enhanced surveillance and accreditation, asking that “all milk vendors be required to register at City Hall, giving the name of their ranch; the number of cows they keep; the number of other cattle kept by them; the average amount of milk sold per month; and...the names of their customers.”⁶¹ He further requested that the owners of each milch cow should be compelled to present certification from the Inspector of Contagious Diseases to ensure “that his herd is free from disease, that his cattle are properly fed and watered, and that the milk is kept in proper receptacles and in a proper milk-house.”⁶²

⁵⁷ “Appalling Tide of Infant Mortality Caused from Impurities in Milk,” *The Daily British Colonist*, 12 July 1908.

⁵⁸ “The City,” *The Daily British Colonist*, 31 August 1894.

⁵⁹ “Tuberculosis in Cattle,” *The Daily British Colonist*, 2 November 1894.

⁶⁰ F.S. Roper, in Department of Agriculture, British Columbia. *Fourth Report of the Department of Agriculture of the Province of British Columbia* (Victoria: Wolfenden Press, 1895): 1118.

⁶¹ George H. Duncan, in Provincial Board of Health of British Columbia. *First Report of the Provincial Board of Health of British Columbia* (Victoria: Wolfenden Press, 1895): 539.

⁶² *Ibid.*

The next year, Duncan's requests received legislative backing and enforcement power in the municipal "By-law to License and Regulate Milk Vendors." The act introduced a licensing program for any cattle owners supplying city residents with milk – each dairyman was ordered to apply for a twenty-five-cent license from the city, and to affix placards to their delivery carts with their license number and name. Licensees were subject to inspection at any time, and dairy producers forfeited their accreditation if "at any time [they sold], or offer[ed] for sale, milk obtained from a farmer, dairyman, or person" who refused to purchase a license or allow inspectors onto their property.⁶³ Addressing popular anxieties surrounding the provenance and purity of dairy supplied the city's milk-drinkers, the act further stipulated that "no milk that has been adulterated, or that has been reduced or changed by the addition of water or other substance...nor milk known as swill milk, nor milk from cows or other animals fed upon distillery slop, starch factory products, garbage, or other like substance...shall be brought into, held, kept, or offered for sale at any place in the City of Victoria."⁶⁴ As municipal and provincial sanitary reformers and inspectors took on an increasingly centralized, activist role in the reformation of the province's urban food systems, a large proportion of their attention focused on the human operators – and nonhuman producers – of the city's dairy supply.

This new exertion of medical knowledge and attendant power first functioned to sort urban subsistence and household production from commercial establishments along sanitary lines. Medical health officers and sanitary inspectors "preferred to work with large commercial dairy producers," notes historian Marion McKay, "who had the necessary capital to invest in barns, milk houses, wells, and livestock that readily met the standards established in the city's

⁶³ "No. 25: A By-law to License and Regulate Milk Vendors," *The Daily British Colonist*, 1 January 1896.

⁶⁴ *Ibid.* "Swill milk" was milk produced by cows that were fed on spent grain from the production of beer and was a source of concern for many city administrations throughout North America in the mid- to late 1800s, who viewed the practice as 'unwholesome' and liable to cause disease.

dairy regulations.”⁶⁵ Those who kept milch cows on confined city lots or in backyard ‘cow byres’ faced heightened scrutiny and surveillance, especially if they circulated surplus dairy products through informal neighborly markets. Much of the impetus for this surveillance originated in still-prevalent conceptions of city space as miasmatic, corrupted and unhealthy. While some home producers and small-scale dairies managed to adhere to the tightening restrictions on milk production, by 1903 there appears to have been only four dairying outfits with less than five cattle in Victoria, according to accreditation records submitted by appointed city veterinary inspector Simon Fraser Tolmie.⁶⁶

Classified advertisements in the *Colonist* through the last two decades of the nineteenth century point toward one major result of the heightened scrutiny applied to subsistence production: urban households gradually sold off their valuable backyard milch cattle. A typical advertisement might offer one or two cows for sale, sometimes with the addition of a calf – a far cry from the professionalized livestock auctions conducted on farms and in downtown auction yards, which often sold milch and beef cattle in groups of five, ten or more.⁶⁷ Addresses of private sellers were overwhelmingly located in the urban core or densifying suburbs within city limits, listed as, in two examples, ‘Queens Avenue’ or ‘Simcoe Street.’⁶⁸ One such classified advertisement, in James Bay, offered for sale “an extra good family cow; big milker; very quiet; part Jersey; fresh calved; young third calf,” and directed prospective buyers to a private

⁶⁵ Marion McKay, in “The Tubercular Cow Must Go: Business, Politics and Winnipeg’s Milk Supply, 1894-1922.” *CBMH/BCHM* 23, no. 2 (2006): 364. McKay’s work deals with the Winnipeg milk supply, but various aspects of the prairie city’s regulation strategies are remarkably similar to those employed by authorities in British Columbia. This convergence was, in large part, due to broader federal oversight in the relatively new Dominion of Canada, as well as similar (though not identical) immigration and settlement patterns in the two cities.

⁶⁶ “Contagious Diseases (Animals) Act,” *The Daily British Colonist*, 16 January 1903.

⁶⁷ Advertisements for professional auctions, conducted by dedicated auctioneers like H. Cuthbert & Co., Joshua Davies, or Herbert Cuthbert & Co, often called attention to larger groups of milch cattle for sale, along with saddle horses, working horses, and other animal residents of Victoria.

⁶⁸ For examples, see “For Sale,” *The Daily British Colonist*, 25 June 1893, “For Sale,” 11 May 1898.

residence at “31 South Turner street, James Bay.”⁶⁹ Some presumably also sold their cattle through the larger licensed auctions, where they could be retailed along with other household cows and imported stock to growing dairy outfits. Professional producers, on the other hand, increased their herds, housing anywhere between ten and 105 milking cows on extensive ranches outside city limits. George Rogers of Victoria, for example, kept 65 animals at his hilltop ‘Chester Lea Dairy’ abutting Lake (later Christmas) Hill in Saanich, while the Smith brothers kept 26, and R.P. Rithet 105 at his extensive farm and ranch at ‘Broadmead.’⁷⁰

These emergent dairy establishments benefitted from increased demand for their products (and concurrent boost in revenue), and quickly began to renovate their establishments to adhere to health inspectors’ recommendations. The first years of the twentieth century ushered in sweeping changes in milk production, as dairy ranchers installed ventilation and concrete flooring, whitewashed and applied lime to all surfaces annually, and allowed milch cattle access to pasture and sunlight. Daylight and fresh air were broadly understood to be especially important in the sanitization of dairy establishments, reflecting the remarkable staying power of environmental understandings of disease. Yet there was also an epidemiological basis to this understanding. Agricultural researchers Mitchell Palmer and W. Ray Waters note that “rates of bovine tuberculosis were higher in herds housed in close-confinement compared to those found on open pastures,” as crowded, confined spaces allowed easier transmission between animals.⁷¹ Further, as McCuaig underlines, “mycobacteria are susceptible to ultraviolet irradiation, [and] outdoor transmission is minimized during daylight.”⁷² While understandings of the tuberculosis

⁶⁹ “For Sale,” 2 May 1905.

⁷⁰ Ibid.

⁷¹ Mitchell V. Palmer and W. Ray Waters, in “Bovine Tuberculosis and the Establishment of an Eradication Program in the United States: Role of Veterinarians.” *Veterinary Medicine International* (2011): 3.

⁷² McCuaig, in *The Weariness, the Fever and the Fret*, 5.

bacilli's characteristics were still largely limited to medical professionals and health officers, environmental understandings of airborne diffusion and the importance of fresh air and light roughly mirrored the bacteria's means of transmission, evincing the ways that miasmatic and bacteriological theories could co-exist in popular understandings of disease.

Regardless of late nineteenth-century understandings of causation, sunlight, ventilation and space became important concerns to veterinary inspectors when weighing the suitability of milk for sale. Dr. A. Knight, veterinary inspector for the province, underscored in 1909 that “when we remember that sunlight will destroy the germ that produces this disease in a few hours, it behooves us to make use of as much sunlight [and air flow] as possible in our stables.”⁷³ In 1912, Victoria's city council, responding to pressure from the city's “Health and Morals Committee,” amended public health bylaws to stipulate that “all keepers of all stables [within city limits] must submit plans of the same, and must take out permits for the animals to be stabled therein.”⁷⁴ All stables were ordered to be cleaned each week, “lime-washed during the first weeks of March and August of each year,” provided with running water, and “lighted by a window or windows admitting unobstructed light, the glass area of such windows to be equal to one-tenth of the total floor space.”⁷⁵ The cramped quarters of Victoria's dense urban space precluded the possibility of operating financially viable dairies that adhered to these strict stipulations, and dairymen with sufficient capital relocated their operations as a result.

Many of these new, bright, sanitary dairies were located in Victoria's peri-urban spaces, outside of city limits in the neighboring rural areas of Saanich and the Lake District, or further north in the growing agricultural communities of the Comox and Cowichan Valleys. Some

⁷³ British Columbia Dairymen's Association, *Annual Report of the Dairymen's Association of British Columbia for the Year Ending December 31st, 1909* (Wolfenden Press: Victoria, 1910): 14.

⁷⁴ “Regulation of Stables,” *The Daily British Colonist*, 28 June 1912.

⁷⁵ *Ibid.*

farmers moved across the Salish Sea, opening dairying establishments on Sea and Lulu Island near Richmond, B.C to supply a rapidly-growing Vancouver, which had eclipsed Victoria as the population center of British Columbia in the late 1880s.⁷⁶ In these less urbanized areas, human populations were correspondingly sparse, and adequate space could more easily be secured for the extensive barns, exercise and pasture for milch cattle that sanitary inspectors expected.

Changes in technology and supply chain infrastructure also contributed to urban livestock's relocation outside of city areas. The organization of co-operative creameries and dairy societies began to take place in settler agricultural country further from the city through the turn of the century. The town of Duncan, in the Cowichan Valley north of Victoria, became host to British Columbia's first co-operative creamery in 1895, allowing members to both market their product further afield and to expand their operations.⁷⁷ An extensive road network across the South Island allowed rural producers easy access to consumers in the city by horse-drawn rig, and after 1886 the Esquimalt and Nanaimo Railway, quickly followed by the Saanich Peninsula's Victoria and Sidney Railway, allowed comparatively rapid transport of various agricultural products, including dairy, between urban consumers and rural producers across southern Vancouver Island.⁷⁸ The region's dairy producers were beginning to consolidate and professionalize, dominating milk, cheese, and butter markets and leaving little room or inclination for subsistence production in urban spaces. The combination of medical scrutiny, restrictive legislation and concurrent enforcement thus worked to move bovine bodies out of

⁷⁶ For example, the above-mentioned James Erskine moved his dairy operation across the water to Richmond, BC in the early 1900s, and carried on a successful large-scale ranch in the dairying-intensive area of Sea Island in the Fraser Delta.

⁷⁷ K. Jane Watt, in *Milk Stories: A History of the Dairy Industry in British Columbia, 1827-2000* (Chilliwack: Fraser Valley Custom Printers, 2000): 52.

⁷⁸ See George R. Hearn and David Wilkie, *The Cordwood Limited: A History of the Victoria & Sidney Railway* (Victoria: British Columbia Railway Historical Association, 1966). See also Donald F. MacLachlan, *The Esquimalt & Nanaimo Railway: The Dunsmuir Years, 1885-1905* (Victoria: British Columbia Railway Historical Association, 1986).

cramped city spaces through the turn of the century in the name of sanitary reform and public health, without threatening consumers' market access to fluid milk and other dairy products. Animals implicated in urban milk supply chains found to be tubercular by this tightening regulatory network faced inspection, quarantine, and eventual slaughter, their bodies flung into pits and covered with quicklime to hasten decomposition.

A major point of contention through the city's tuberculosis eradication efforts was one of compensation for these slaughtered animals. Victoria's dairy ranchers were happy to permit the testing of their cattle with tuberculin to provide peace of mind to the city's milk consumers and prove their product sanitary, but they were loath to shoulder the cost of destroying the animals should they be found to be "reactors" to the tuberculin test. In 1894, many of Victoria's cattle owners joined the newly-formed British Columbia Dairymen's Association to advocate for reimbursement from the Dominion and provincial governments for the destruction of their herds, and the next year several "very large and enthusiastic" meetings were held at Cedar Hill schoolhouse in the east of the city and Colquitz Hall in the west to organize Victoria's cattle owners.⁷⁹ At these meetings, the dairy operators resolved that "it is clearly the duty of the provincial government to pay fair compensation for all cattle already killed or quarantined, and to see that no further injustice whatever is done by such killing or quarantining by order of the provincial government unless it is the[ir] intention to pay all damages connected therewith."⁸⁰ These damages could be quite substantial, both in terms of fee-simple property loss and of reputation (and thus business). George McRae, a dairy operator on Cedar Hill road in Victoria's peri-urban farmlands, was compelled to slaughter 53 of his animals when they tested positive for

⁷⁹ "Provincial Dairymen," *The Daily British Colonist*, 31 January 1895.

⁸⁰ "Tuberculosis," *The Daily British Colonist*, 26 February 1895.

tuberculosis, and later commented that “the discovery of tuberculosis among his own cattle had been most injurious to him individually.”⁸¹

McRae here referred to the practice under “a By-law to License and Regulate Milk Vendors” of publishing the names of “clean” milk vendors in the *Colonist*. As many of his herd had been quarantined and later slaughtered, his cattle became widely known as tuberculous. This, in turn, had dire results for the dairyman’s trade – “[I] could not sell half the milk [I] had sold before,” McRae complained. Although the province agreed to offset the cost of feed for McRae’s afflicted cattle while in quarantine (to the tune of \$1600), the damage had evidently been done.⁸² Other dairymen sought to address rumors of infection directly, in hopes of preserving their own business. Veterinary Inspector Roper, in his annual report for 1896, notes that “Mr. Coigdarippe requested me to visit his ranch on Gordon Head Road for the purpose of inspecting his cattle, as a report was being circulated that they were suffering from tuberculosis.”⁸³ Roper dutifully tested the cattle, finding them “free of disease, and accordingly granted [them] a clean bill of health.”⁸⁴ Still others published notices in the *Colonist* to alert consumers to the purity of their milk supply. For instance, the appropriately named “Messrs. Davies & Buttery” published notice that their herd had been found free of the disease, appending a note “beg[ging] to thank Mr. Roper and his assistants for the very kind, efficient, and careful manner in which they handled our stock in testing them for Tuberculosis.”⁸⁵ Yet despite these urban dairymen’s efforts, tuberculin testing and the resulting circulation of knowledge about infected dairies seems to have overwhelmingly impacted dairy producers located close to or within the city, and funneled business into the

⁸¹ “Provincial Dairymen,” *The Daily British Colonist*, 31 January 1895.

⁸² “Hon. Mr. Eberts’ Constituents,” *The Daily British Colonist*, 9 March 1895.

⁸³ F.S. Roper, in British Columbia Department of Agriculture, *Fifth Report of the Department of Agriculture of the Province of British Columbia, 1895-96* (Victoria: Wolfenden Press, 1897): 1215

⁸⁴ *Ibid.*

⁸⁵ “Notice,” *The Daily British Colonist*, 6 January 1895.

hinterlands and outlying districts, where large, well-capitalized dairies that adhered to sanitary regulations took increasing shares in the city's market for milk. Indeed, in the Dominion agricultural census for 1891, there were thirteen dairy farmers operating within city limits, and 1,612 milch cattle on dairy ranches and private property.⁸⁶ By 1911, there was only one dairy farmer, and 75 cattle.⁸⁷

Thus, as the capital city's human population grew, the nonhumans that were so crucial to its growth and sustenance were gradually moved further from urban limits. With ongoing changes in public health protocols borne by the expanding reach of medical and veterinary authorities and the tightening of municipal regulations, understandings of disease causation and prevention shifted focus. Moving gradually from a reactive approach to filth, stench and miasma, legislators and medical authorities began to take preventative measures to combat the unseen – and unseeable – world of germs, bacteria, and viruses. This epistemic shift, slow and complicated as it was, saw the growth of medical and sanitary authorities as integral aspects of municipal governance and supply chain inspection. As heightened expert scrutiny focused on bodies and spaces that began to seem likely reservoirs of disease, sanitary reform grew increasingly tied to modernizing progress discourse and the wider project of middle-class moral uplift in urban areas. Resulting legislation and its enforcement would begin to render backyard production, urban subsistence livelihoods, and livestock animals threats to the sanitary, moral, and future-oriented city space envisioned by city councilmen, medical authorities, and citizens alike. Developments in transportation infrastructure and the growth of larger co-operative and privately capitalized dairies and creameries that had the necessary capital to adhere to stringent public health regulations gradually moved milk production outside the city limits, spelling the

⁸⁶ “Table III – Animals and Animal Products,” *Census of Canada 1891* (Ottawa: S.E. Dawson, 1897): 116.

⁸⁷ “Table VII – Livestock on Farms, 1911.” *Census of Canada 1911* (Ottawa: J. de L. Taché, 1914): 338.

end of subsistence dairy production and informal markets for milk in Victoria's industrializing urban space over the turn of the century.

Another, more insidious process accompanied the material relocation of animals, however. As city spaces became more and more 'human,' the categories of 'urban' and 'rural' began to stabilize as discrete entities. City consumers, receiving their milk in sealed glass bottles from professionalized distribution networks, began to lose sight of the animals that produced it, alienating consumer commodities from the means of their production and contributing to a disturbing phenomenon. As Brown notes, "while animals kept as livestock became less and less visible during the course of the century, people consumed their flesh [and products] more and more."⁸⁸ The industrialization of livestock husbandry for flesh, milk, and other products far from urban consumers would wreak its own brand of destruction over the ensuing century, expanding Victoria's ecological footprint deep into the British Columbia mainland and instigating sweeping changes in lands and livelihoods. Indeed, this process had already begun.

⁸⁸ Frederick Brown, in *The City is More Than Human: An Animal History of Seattle* (Seattle: University of Washington Press, 2016): 200.

“The Bunch-grass Levels Where the Cattle Graze:”

Goldfields, Railroads, and Making Victoria's Cattle Frontier, 1862-1919

In late 1890, a reporter for the *Colonist* turned up his jacket collar and plunged into the cold December air to take stock of Victoria's meat supply. For the previous twenty years, the butchers of the city had put on a grand show each Christmas, festooning the carcasses of cows, pigs, lambs, and other livestock with sprigs of holly, ribbons, flags and candles, and carving intricate patterns in the thick layers of fat of their nonhuman wares. The show had become an institution in the city over the years, and a welcome respite from the biting wind and ceaseless rain of Vancouver Island's wet winter months. Passersby peered into shop windows illuminated by the shimmer of gas lanterns and reveled in the growing animal abundance of their commercial city.

This year, several of the butchers had outdone themselves. Lawrence Goodacre, a veteran retailer of the Victoria butchery community, housed “thirty head of four year old steers,” shipped across the Salish Sea from Thaddeus Harper's substantial “Gang Ranch” in Chilcotin country, which had been “specially fattened” until they averaged a hefty 1,200 pounds each.¹ One hundred and twenty “cross-bred Cotswold and Southdown” sheep, a 140-pound ewe, fifty Southdown lambs at fifty pounds each, fifteen “milk-fed calves” weighing “about 150 lbs each,” a “mammoth hog” of 715 pounds, 36 sucking pigs, eighteen “back-set porkers,” and even “a young Cinnamon bear, fat as butter” rounded out Goodacre's display.² Passing this macabre

¹ “The Markets” *The Daily Colonist*, 24 December 1890.

² *Ibid.*

NEW ADVERTISEMENTS.

Christmas ^{WITH} Exhibition OF **MEATS!** AT

Queen's Market.

CORNER GOVERNMENT AND JOHNSON STREETS.

MESSRS. GOODACRE & DOOLEY

EXCELLING THEIR SHOW OF ANY PREVIOUS YEAR—CONSIDERED BY ALL THE GILANDEST
EVEN WITNESSED—WILL ON THIS OCCASION PLACE BEFORE THE PUBLIC A
DISPLAY NEVER TO BE SURPASSED.

ONLY PURE BREEDS OF STOCK WILL BE EXHIBITED

Obtained from All Parts at Enormous Expense and Trouble.
Our aim has ever been to occupy our present position as PROPRIETORS of the FIRST and BEST MARKET in the
Land, and we feel assured have succeeded.

WE WILL EXHIBIT

WHOLE BULLOCKS WEIGHING 2,000 LBS.

WHILE TWENTY OTHERS, EQUAL IN QUALITY AND WEIGHT, QUARTERED AND SYSTEMATICALLY
ARRANGED, HELP TO BEAUTIFY THE ESTABLISHMENT.

The MUTTON and LAMB excel anything ever before produced.

30 Sheep averaging the Enormous Weight of 200 Pounds Each.

THE SAME MAY ALSO BE SAID OF THE

PORK, VEAL AND POULTRY.

All Fed Exclusively for this Festive Season.

FOR SPECIALITIES WE HAVE OBTAINED TWO BEAUTIFUL

ANCORA COATS, ALSO, A PAIR OF ROCKY MT. BEARS,

Dressed in the most artistic manner and calculated to suit the most fastidious.

**We Respectfully Invite the Public to Call and Inspect Our Establishment
TO-DAY and TO-NORROW. To appreciate our Display it must be inspected**

A Christmas advertisement for Goodacre & Dooley's butcher shop. *The Daily Colonist*, 22 December 1881.

spectacle, the reporter came to the corner of Douglas and Johnson Streets, where Porter and Son's Island Market exhibited "over 25 bunch-grass fed steers averaging 1,000 pounds," 150 sheep, 700 turkeys, 450 geese, 42 "six months' old lambs," thirty hogs, and "another bear."³ Making his way along the main thoroughfare of Douglas Street, the reporter next stopped in at John Parker & Son, who had on display 60 sheep, 31 sucking pigs, 70 geese, 120 turkeys, and

³ "The Markets," *The Daily Colonist*, 24 December 1890.

twenty lambs.⁴ As the night wore on, he continued past three more butchers' storefronts, each with equivalent amounts of animal flesh proudly displayed. Victoria, it seemed, was in no short supply of meat. Where it came from was another story.

As livestock populations saw a gradual decline in the urban space of the capital city over the late nineteenth century, ranching and livestock husbandry had spread inland, following fur brigade trails and the northeastern expansion of the mining frontier into the arid valleys east of the Coast Mountains and the rolling plateaus and river valleys of British Columbia's Southern Interior. Here, bunchgrass ecosystems provided year-round feed, and allowed for rapidly accumulating populations of cattle and other livestock on settler ranches. The nutritious graze and broad spaces of these ranges allowed for an increased supply of meat and animal by-products to the growing urban centers of Victoria and New Westminster, supporting burgeoning settler populations both on the island and the mainland through the extension of a livestock frontier. Yet the establishment of beef ranches in particular was a profoundly land-intensive and destructive process that fundamentally reorganized space in the province. Overgrazing and range mismanagement in fragile bunchgrass biomes, coupled with systematic dispossession, legislation and enclosure, would profoundly alter ecosystems and Indigenous economies, introducing a new environmental order displaced from the city, yet profoundly influenced by it. In this way, Victoria's ecological footprint spread further and further inland through the years of urban growth over the turn of the century and beyond, as the animal flesh that fed the city's burgeoning population increasingly came from British Columbia's interior. Technological advances in transportation, retail and cold storage would see the city's meat markets and butchers' establishment change, too, moving slaughter and processing further from urban dwellers and

⁴ "The Markets," *The Daily Colonist*, 24 December 1890.

eventually across the Salish Sea and masking the destructive process inherent in feeding the city's urban metabolism.

“Have you wandered the wilderness, the sagebrush desolation, the bunch-grass levels where the cattle graze?” wrote British-Canadian poet Robert W. Service in 1903, “have you marked the map's void spaces, mingled with the mongrel races/Felt the savage strength of brute in every thew?”⁵ Travelling through the interior drylands near the town of Kamloops near the turn of the century, Service was deeply impressed by the juxtaposition of settlement and wilderness on this ranching frontier, deftly naturalizing the presence of cattle on the “bunch-grass levels” of interior benchlands and river valleys even as “the map's void spaces” remained populated by “brutes” and “mongrel races.” In many ways, Service's poetic description of British Columbia's stock-raising hinterland was performative – it pre-emptively denaturalized Indigenous presence on the land, even as it entrenched settler livestock husbandry as the expected use for their territories, rendering it natural and inevitable. Yet it also reflected a creeping reality in these eastward-facing borderlands. Although gold initially brought cattlemen to the Interior, mining gradually gave way to settler ranching from the mid-1860s, setting the stage for the spread of an expanding cattle economy to feed growing populations in Victoria and, in the process, making an animal hinterland of the Interior drylands over the mountains.

The two gold rushes, with their rapid influxes of gold seekers, largely brought commercial cow-calf cattle ranching to British Columbia. As colonial authorities and the city council struggled with the logistics of supplying their island city with meat through the boom years between 1858 and 1865, relying on domestic production from PSAC farms and overseas imports from Puget Sound and Honolulu, a separate overland supply chain began to evolve on

⁵ Robert William Service, “The Call of the Wild,” *The Spell of the Yukon and Other Verses* (New York: Barse & Hopkins, 1907): 30-31.

the mainland. At the urging of Governor James Douglas, cattle drovers from Oregon Territory's Willamette Valley began to drive beef cattle toward the growing network of mines and settlements through the upper Fraser and Cariboo from 1858, moving thousands of animals through the dry shrub-steppe lands of Washington's north central interior, past the international boundary and customs house at Osoyoos, and into BC's southern Okanagan Valley.⁶ Once across the border, drivers overwintered their herds in the warm and feed-abundant bunchgrass benchlands along the Thompson River, before herding them north and west along the old HBC fur brigade trail to the placer gold deposits of the Fraser and Cariboo during the springtime thaw.⁷ They found a booming market for their cattle – prospectors often paid exorbitant amounts of money for fresh beef, due in large part to logistical issues brought about by British Columbia's geography. The steep-sided river canyons of the Fraser, despite colonial authorities' road-building efforts, remained nearly inaccessible to coastal supply chains for much of the year, and enormous mark-ups on staple provisions were pervasive. As historian John Lutz notes, cattle bought for ten dollars per head in Oregon often “sold for \$40-50 a head in the Cariboo.”⁸ American drovers quickly capitalized on this booming market, moving an estimated 22,000 cattle over the border and into British Columbia's mining markets between 1859 and 1870.⁹

Settlers were not far behind. With the completion of the Cariboo Road in 1865 from Yale to Barkerville, the mainland settlement frontier began to open along the Fraser River, allowing colonists access to interior plateau lands east of Lytton.¹⁰ In Victoria, the colonial legislature

⁶ Alastair MacLean, “History of the Cattle Industry in British Columbia.” *Rangelands* 4, no. 3 (June 1982): 132.

⁷ *Ibid.*

⁸ John Lutz, “Interlude or Industry?: Ranching in British Columbia, 1859-1885.” *British Columbia Historical News* 13, no. 4 (Summer 1980): 3.

⁹ Ken Mather, in *Buckaroos and Mud Pups: The Early Days of Ranching in British Columbia* (Vancouver: Heritage House, 2006): 28.

¹⁰ See Frank Leonard, “‘Eighth Wonder of the World:’ The Cariboo Wagon Road as British Columbia's First Megaproject.” *Journal of the Canadian Historical Association* 27, no. 1 (2016).

eased Wakefieldian strictures on land leases and pre-emption that year with the signing of the “Land Ordinance, 1865,” allowing leases of “unoccupied and unsurveyed land...for pastoral purposes” provided that the pre-emptor of the original land “stock[ed] the property...in proportion of animals to the one hundred acres” set by the district Stipendiary Magistrate.¹¹ Additional land over and above the 160 acres provided for by pre-emption laws could be purchased for the price of “two shillings and one penny per acre” until the land was formally surveyed, up to a limit of 480 acres.¹² Agriculture and stock-raising, to the colonial legislature, was the best way to ‘improve’ the vast spaces of the North American mainland and make permanent British ambitions of settlement in the region, while providing a domestic resource base for its growing urban colony on Vancouver Island. Indeed, as Dominion Minister of Public Works H.L. Langevin wrote seven years later, “the [Interior] country is specially adapted for the raising of cattle, horses, and sheep,” and was capable “of becoming a storehouse of animal and vegetable produce, able to supply, not only [Vancouver] Island, but the entire Pacific.”¹³

Colonial legislators in Victoria, evincing similar aspirations of a prosperous agricultural future, quickly removed impediments to settlement. Formerly inaccessible Indigenous territories were gradually rendered available by a combination of land legislation and transportation infrastructure for pre-emption and settlement, and ranches began to spring up in closer proximity to the mines, stocking their ranges with imported American cattle acquired from border-crossing drovers.¹⁴ As historian Margaret Ormsby observes, ranching became “fairly well established”

¹¹ Michael Begg, “Legislating British Columbia: A History of B.C. Land Law, 1858-1978.” MA Thesis (Vancouver: University of British Columbia, 2007): 40

¹² “An Ordinance for Regulating the Acquisition of Land in British Columbia,” 11 April 1865, in *Ordinances Passed by the Legislative Council of British Columbia during the Session from January to April, 1865* (New Westminster, Government Printing Office, 1865).

¹³ H.L. Langevin, *Report of the Hon. H.L. Langevin, C.B., Minister of Public Works* (Ottawa: I.B. Taylor, 1872): 14.

¹⁴ “An Ordinance for Regulating the Acquisition of Land in British Columbia.” 11 April 1865. For a closer look at these “turbulent frontiers” of settlement, which could be characterized by violence, ‘gunboat diplomacy,’ and the extension of colonial state power, see Barry M. Gough, “Turbulent Frontiers and British Expansion: Governor

along the Thompson and Nicola Valleys in the southern interior by the middle of the decade, while cattlemen built road houses, supply depots, and small-scale beef ranches along the Cariboo Road stage route to the north.¹⁵ Despite the colonial ambitions of the legislature in Victoria, this was not solely a British settler industry. American cattle drovers such as Thaddeus and Jerome Harper, two Confederate-sympathizing West Virginian brothers, gradually began to pre-empt valley bottom lands along the Thompson, and bought extensive tracts of land in the western Cariboo and Chilcotin west of the roadside settlement at 100 Mile House over the 1860s, partnering with fellow countrymen Isaac and Benjamin van Volkenburgh to fulfill mining supply markets. Several would-be prospectors turned their attention to ranching after failing to “strike it rich” in the alluvial gold deposits of the Cariboo, settling neighboring land near present-day Quesnel and Riske Creek, while emigrants like Joseph Blackbourne Greaves squatted on riverside grazing pastures in the southern river valley of the Nicola through the early 1860s.¹⁶

By 1868, these newly local ranchers had all but cornered the beef market for placer gold prospectors, creating a domestic cattle economy along a rough northwest-southeast axis in British Columbia’s interior and extending a pastoral settlement frontier deep into Indigenous territories. As the region inched closer to Confederation with the eastern provinces of Canada in the final years of the decade, enticed by the promise of transcontinental rail link, ranchers saw the potential for enormous profits to be gained in transporting beef cattle by rail to eastern metropolises as well as to coastal markets on Vancouver and the Fraser Delta. Many ranchers rejoiced in 1871, then, as British Columbia joined the new Canadian Confederation – their

James Douglas, the Royal Navy, and the British Columbia Gold Rushes.” *Pacific Historical Review* 31, no. 1 (February 1972): 29.

¹⁵ Margaret A. Ormsby, in “Agricultural Development of British Columbia.” *Agricultural History* 19, no. 1 (January 1945): 12.

¹⁶ Ken Mather, *Buckaroos and Mud Pups*, 176.

fortunes, they were sure, were near on the horizon. Yet the railway was a long time coming. As the decade wore on, with no immediate prospect of railroad construction through the province, local markets for beef cattle among miners spiraled rapidly into recession as discouraged prospectors and merchants left the Cariboo in droves.¹⁷

Coastal markets were marginally accessible via narrow, poorly-maintained trails over the Cascade and Coast ranges, but retail butchers in the main Vancouver Island population centers of Victoria and Nanaimo remained largely import-driven, sourcing their stock from western Oregon, San Francisco and Honolulu and transporting them by sea to Victoria's Inner Harbor wharves.¹⁸ The scale of expenditure on "foreign beef" garnered the attention of legislators as well as commentators like *Colonist* editor D.W. Higgins, who complained in an 1873 column that "the country [was] being drained of its wealth at the rate of something like one hundred and twenty-five thousand dollars a year."¹⁹ Interior stock-raisers were similarly "distressed," sending a ninety-one-signature petition to the province's Lieutenant-Governor that year "beg[ing]...for the construction of a road from the south end of the Nicola Forks, up the Coldwater Valley to the summit of the Coquihalla, [and] thence down the Coquihalla to Fort Hope" on the lower Fraser. The lack of viable transportation to coastal markets, "together with the fact that the cattle ranges [were] becoming overstocked and destroyed," they wrote, "will induce you to make some efforts for our relief."²⁰ The dry bunchgrass rangelands of the Interior, these petitioners worried, were

¹⁷ Lutz notes that "prices in the Cariboo tumbled from \$60 a head to \$12-15 a head" as the Cariboo mining market rapidly contracted, providing significant incentive for interior ranchers to seek new markets. See Lutz, "Interlude or Industry?," 7.

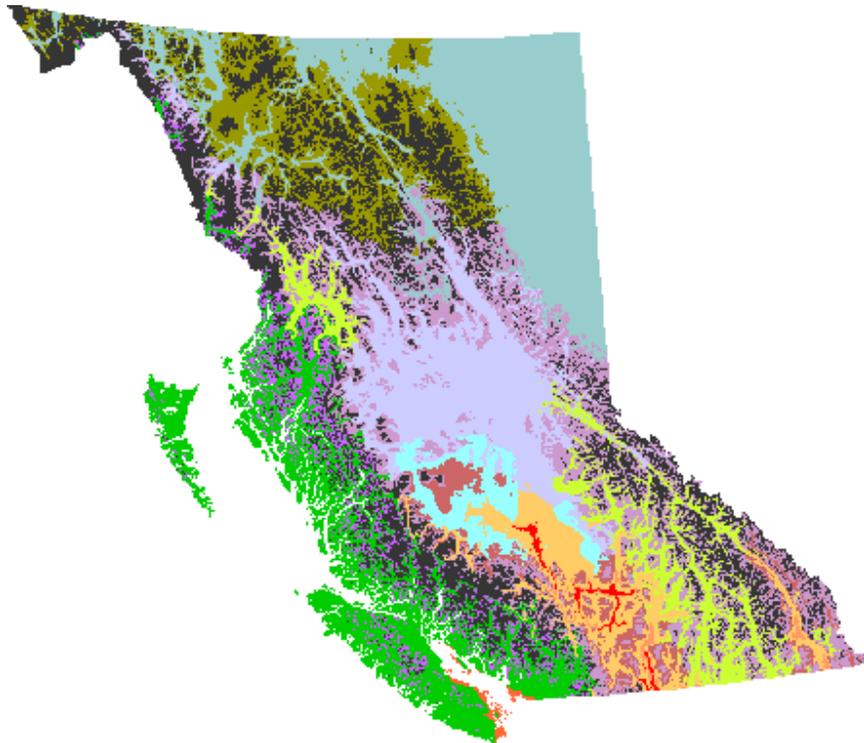
¹⁸ Gregory E.G. Thomas, "The British Columbia Ranching Frontier: 1858-1896" (MA Thesis, University of British Columbia, 1976): 15. For a detailed look at population densities in the province before the turn of the century, see Cole Harris, "A Population Geography of British Columbia in 1881," in *The Resettlement of British Columbia: Essays on Colonialism and Geographical Change* (Vancouver: UBC Press, 1997): 139.

¹⁹ "An Outlet for Beef," *The Daily British Colonist*, 28 June 1873.

²⁰ BCA, GR-0868.

rapidly becoming untenable for stock-raising and cattle ranching due to a lack of market outlets, overstocking of ranges, and resulting changes in the land. In many ways, they were right.

The Interior Plateau encompasses a wide swathe of grassland and mixed forest in south-central British Columbia, its broad expanse of rolling hills and deep river valleys spanning parts of the Columbia River watershed, as well as the Fraser River and its tributaries. The region lies within an expansive rain shadow, an “interior dry belt” protected from the moist maritime weather of the Pacific Coast by the mountains of the Coast and Cascade ranges to the west.²¹ Indeed, in the driest parts of the region, average annual precipitation is limited to under thirty centimeters.²² Relatively dry conditions in river valley bottoms and south-facing benchland



This biogeoclimatic map of British Columbia shows the limited extent of the bunchgrass zone, which is highlighted in red. Image courtesy of the Ministry of Forests, Lands, and Natural Resource Operations (Victoria: Government of British Columbia, 2016).

²¹ Cole Harris and David Demeritt, “Farming and Rural Life” in *The Resettlement of British Columbia: Essays on Colonialism and Geographical Change* (Vancouver: UBC Press, 1997): 222.

²² John Thistle, in *Resettling the Range: Animals, Ecologies and Human Communities in British Columbia* (Vancouver: UBC Press, 2015): 18.

hillsides discourage the growth of tree canopies, and are instead favorable for the formation of bunchgrass ecosystems.²³ The soil network of these grasslands is characterized by a variety of self-seeding, annual tufting bunchgrasses, surrounded by a microbiotic surface crust of nitrogen-fixing cyanobacteria, mosses and lichens that is non-sod-forming and profoundly fragile.²⁴ The rangelands of British Columbia's southern interior, unlike those of the Great Plains to the east of the Rocky Mountains, evolved over millennia without extensive grazing by large ungulates. As historical geographer John Thistle observes, the grazing pressure exerted by native species like antelope, deer, and bighorn sheep was insignificant when compared to the grazing and trampling of the twenty to forty million Plains bison living across the Great Divide, leading to drastically different patterns of ground-level vegetation.²⁵ In British Columbia's interior, the outcome was a uniquely delicate ecosystem vulnerable to overgrazing, compaction and eventual desertification when overstocked with heavy-grazing, non-native bovines.²⁶ Further, a combination of human-induced landscape management fires and natural conflagrations had maintained this ecosystem for millennia before settlement, limiting the growth of competing shrubs and trees and periodically returning valuable nitrogen and phosphorus to the soil.²⁷ The result, Thistle explains, was a landscape "dominated at lower elevations by bunchgrass with occasional patches of brush," and at upper elevations by "relatively open stands of ponderosa pine and Douglas fir."²⁸

²³ Thomas R. Weir, *Ranching in the Southern Interior Plateau of British Columbia*, Memoir No. 4, Geographical Branch, Mines and Technical Surveys (Ottawa, Queen's Printer, 1955): 21.

²⁴ Thomas L. Fleischner, "Ecological Costs of Livestock Grazing in Western North America." *Conservation Biology* 8, no. 5 (September 1994): 633.

²⁵ Weir, *Ranching in the Southern Interior Plateau of British Columbia*, 21. See also Fleischner, "Ecological Costs of Livestock Grazing," 637. Plains environments are characterized by sod-forming rhizomatous grass cover, which is much more resistant to trampling pressure due to underground rhizome root networks.

²⁶ Thistle, *Resettling the Range*, 19.

²⁷ Nancy J. Turner, Douglas Deur, and Dana Lepofsky, "Plant Management Systems of British Columbia's First Peoples." *B.C. Studies* no. 179 (Autumn 2013): 123.

²⁸ *Ibid.*, 20.

The bunchgrass ecosystems that provided ample feed for large herds of settler beef cattle were thus confined to “swamp meadows,” lowland swales, and river bottomlands, while pine and fir stands at higher elevations could not support comparably concentrated populations.²⁹ Indeed, as geographer Thomas Weir notes, the average carrying capacity of combined grazing land in the southern Interior “range[d] from 10 to 30 acres per cow on a 6-month basis.”³⁰ In response, the spatial practice of ranching took the form of transhumance: cattle were herded from valley bottoms in the spring into the higher elevations and wider spaces of Crown-owned “hill commons” as the summer progressed, before being ‘rounded up’ in late fall and brought back to the valley bottoms to ‘rustle,’ or feed on stored hay (largely comprised of cultivated alfalfa and brome grass) over the winter.³¹ Competition for winter grazing sites thus characterized the cattle frontier of British Columbia, as settlers located themselves “by pre-emption, purchase, or squatting” on prime bottom lands in close proximity to water, hay for winter feed, and access to upland summer grazing.³² These valley bottom lands were sparsely concentrated along the Chilcotin, Middle Fraser, Thompson, Similkameen and the Nicola Valleys – indeed, only four percent of BC’s land area is amenable to livestock husbandry, and the best land rapidly concentrated in the hands of a relatively small number of ranchers.³³

The intensification of ranching and concurrent settlement relied on open access to land – but, as was the case in Lekwungen territory and across much of what is now British Columbia, it was already occupied. What Thistle terms “the biogeography of dispossession” thus fundamentally underlay the extension of the British settlement frontier into ‘cattle country,’ as

²⁹ Weir, *Ranching in the Southern Interior Plateau of British Columbia*, 27.

³⁰ *Ibid.*, 31.

³¹ Thistle, *Resettling the Range*, 23.

³² Thomas, “The British Columbia Ranching Frontier,” 201. Notable squatters included Americans like the Harper brothers, who refused to take an oath of allegiance to the British Crown and were thus ineligible for pre-emption allowances under the *Land Ordinance*.

³³ Weir, *Ranching in the Southern Interior Plateau of British Columbia*, 3.

settler ranchers often pre-empted and sometimes purchased the ancestral territories of Tsilqot'in, Nlaka'pamux, Stl'atl'imx, Okanagan and Secwepemc peoples suitable for ranching from the Surveyor General and Chief Commissioner of Lands and Works in Victoria and New Westminster. Indigenous communities living in areas amenable to ranching were rapidly relocated onto reserve lands, which dwindled in size as colonial settlement gained momentum and jurisdiction changed hands. Under Commissioner of Land and Works Joseph Trutch, who was responsible for addressing Native land claims and reserve apportionment after Governor Douglas' resignation in April 1864, lands allocated in the grasslands of the southern Interior were "very materially reduced," largely through a rejection of land claims and racist assertions of Indigenous savagery in relation to the "utilitarian ideal of farming and industry."³⁴

For instance, 1862 saw the creation under Douglas appointee William Cox of six hundred square miles for T'kemlups te Secwepemc communities near Kamloops, a tract of land that Trutch deemed "of most unreasonable extent."³⁵ It was gradually partitioned by surveyor Edgar Dewdney into five reserves over 1866, the largest of which spanned three square miles.³⁶ Despite a continued lack of fencing that traditionally marked private property in the British common-law tradition, ranchers "often drove [Indigenous-owned] cattle off" their ill-defined pastoral leases and common grazing lands, and brought a growing number of trespassing allegations to courts, especially as Indigenous families increasingly turned to ranching and stock raising as a means of economic survival over the 1860s and 1870s.³⁷ Indigenous-owned horses, known as "cayuses,"

³⁴ Joseph Trutch, Report on the Lower Fraser Indian Reserves, 28 August 1867, in Cole Harris, "The Native Policies of Governor James Douglas," *BC Studies* 174 (Summer 2012): 119. Kenichi Matsui, "White Man Has No Right to Take Any of It: Secwepemc Water Rights in British Columbia." *Wicazo Sa Review* 20, no. 2 (Autumn 2005): 79.

³⁵ Trutch, "Report" in Harris, "The Native Policies of Governor James Douglas," 119.

³⁶ Thistle, *Resettling the Range*, 38.

³⁷ Thomas, "The British Columbia Ranching Frontier," 109. Douglas noted the existence of "large numbers of horses & cattle" owned by Indigenous communities in the southern interior near Lytton and along the Thompson River." (Harris, "The Native Policies of Governor James Douglas," 115).

would later be targeted for provincial extermination campaigns through assertions of their wildness (and thus lack of ownership), eugenic understandings of stock degradation through interbreeding, and the general conception that horses grazed down bunchgrass that could be more profitably used by settler cattle.³⁸ As cattle and capital spread in tandem across the bunchgrass interior, Indigenous land claims and economies were the first to feel their impact.

Ranchers such as Tom Ellis in the southern Okanagan Valley, Frank Richter in the Similkameen, and J.B. Greaves and Lawrence Guichon in the Nicola, who had established themselves on this prime grazing land in the late 1860s as suppliers for the mining market, saw their beef herds grow tremendously through the early 1870s due to the nutritive density of the abundant bunchgrass meadows they alienated and enclosed and the dwindling markets for their cattle. Indeed, one “low estimate” in the *Colonist* assessed the total number of settler-owned cattle on interior ranges at 36,244 head in 1873, with the majority centered in the southern Interior around Kamloops, the Similkameen Valley, and Nicola Lake, and with significant numbers in the western Cariboo and Chilcotin regions.³⁹ Cattle herds in the Interior Plateau were clearly reaching a critical mass, and soon began to effect sweeping changes to grazing lands.

The economic recession and stalling local markets that accompanied the decline of mining in the Cariboo brought to the fore issues of overstocking and overgrazing – problems that threatened the long-term survival of the settler ranching industry. If fragile bunchgrass soil ecosystems were trampled or cropped too short by rancher’s sheep and cattle, especially during spring thaws before the grass could form seed and reproduce, root systems would become

³⁸ See Thistle, *Resettling the Range*. Horses were exceptionally important to Indigenous groups living in the Interior Plateau region and played central roles in economies and livelihoods. Settler-directed cayuse eradication campaigns were thus deeply disruptive to Indigenous socio-cultural and economic fabrics.

³⁹ “The Beef Supply,” *The Daily British Colonist*, 26 October 1873.

irreparably damaged, and the grass would gradually die back.⁴⁰ In their place, tree saplings and unpalatable woody shrub species like sagebrush and antelope brush thrived, occupying an ecological niche previously denied to them by dense bunchgrass ground cover and seasonal pre-colonial burning. Inadvertently introduced invasive species, such as cheatgrass, knapweed, dandelion, and Canadian thistle, also became increasingly common in the drylands through the 1870s and 1880s, replacing native bunchgrasses with rapidly-reproducing – and sometimes poisonous – weeds.⁴¹ Signs of the ecological impact of intensive grazing regimes were already becoming evident to onlookers and newcomers in the grasslands by the early 1870s. Reverend George Grant, travelling with the surveying party of Sanford Fleming through the Ashcroft region in 1873, noted in his diary that “the cattle had eaten off all the bunch-grass within three or four miles of the road.”⁴² In its place, he observed, “a poor substitute...called ‘sage grass’ or ‘sage bush’ has taken its place.”⁴³ Access to a dependable market was sorely needed to relieve grazing pressures and sustain the ranching industry in the face of these changes to the land, and cattlemen looked toward the growing population at Victoria in order to sell their quickly accumulating herds.

Ranchers on the southern ranges of the Okanagan and Nicola valleys thus began to utilize the Dewdney Trail, completed in 1866, and the Coquihalla Trail, established in 1876 at the urging of Nicola Valley ranchers, to move small herds of cattle over the Cascade Range to coastal markets through the early 1870s.⁴⁴ Stock-raisers in the mid-interior region around Kamloops and Ashcroft followed suit, trekking the precarious ‘Canyon route’ of the Cariboo

⁴⁰ Thistle, *Resettling the Range*, 131

⁴¹ *Ibid.*, 19.

⁴² George M. Grant, *Ocean to Ocean: Sanford Fleming’s Expedition through Canada in 1872, Being a Diary Kept During a Journey from the Atlantic to the Pacific* (Toronto: James Campbell & Son, 1873): 300.

⁴³ *Ibid.*

⁴⁴ Mather, *Buckaroos and Mud Pups*, 85.

Road down the Fraser Canyon to Yale, while northern ranchers like the Harpers and Van Volkenburghs of the Cariboo drove their herds over the ‘Lakes route’ to Harrison Lake.⁴⁵ Despite various points of departure, market herds would typically converge at Fort Hope, situated on the navigable portion of the lower Fraser River, where they were loaded onto steamers for the water passage to the settlements of New Westminster and Fort Langley near the river’s mouth. Cattle were then driven into the holds of steamers such as the *Wilson G. Hunt*, bound for Victoria, where they were offloaded into the water off Cattle Point (near the HBC’s Uplands Farm) or landed at Cadboro Bay at Vancouver Island’s extreme southeastern tip.⁴⁶ Others came ashore in Victoria’s Inner Harbor before being driven through the city streets to various butchers. In September 1877, for instance, the *Colonist* noted that “a band of fine cattle from Mr. F[rank] Richter’s ranch in Semilkameen [sic] Valley passed through Government street,” bound for Frederick Reynolds’ London Market at Douglas and Yates Streets. One “three-year-old steer,” the reporter wrote, was “the largest of his age ever seen in Victoria” and would “dress 1100 pounds of fine bunchgrass beef.”⁴⁷

Although the journey over the mountains and across the Salish Sea was long and arduous, Victoria’s growing appetite for the Interior’s sizeable, bunchgrass-fed beef cattle provided significant incentive for ranchers to market their animals in the city. Indeed, butchers’ advertisements in the *Colonist* began to boast by the mid-1870s of their “superior” stocks of “Mainland Beef and Mutton,” evincing the value placed on the newly domestic provenance of Victoria’s meat.⁴⁸ Intra-provincial supply chains, wholesale outlets, and receiving yards linking Victoria to its expanding ranching hinterland also began to form toward the end of the decade –

⁴⁵ Lutz, “Interlude or Industry?,” 7. See also Leonard, “Eighth Wonder of the World,” 173.

⁴⁶ “From New Westminster,” *The Daily British Colonist*, 17 August 1879.

⁴⁷ “Fine Cattle,” *The Daily British Colonist*, 19 September 1877.

⁴⁸ “Frederick Reynolds, Family Butcher,” *The Daily British Colonist*, 27 April 1873.

one Cariboo cattle and sheep rancher, Benjamin van Volkenburgh, established the successful British Columbia Meat Market on Yates Street in 1880, and advertised “the best qualities of beef, pork, and mutton, principally from [his family’s] own ranges on the mainland.”⁴⁹ Van Volkenburgh and his brother Isaac, who had entered into partnership with Thaddeus Harper to supply coastal markets, constructed a holding pasture and slaughterhouse near Cadboro Bay, where they enjoyed easy access to cattle shipments from their and Harper’s mainland ranches in the Cariboo and Chilcotin. Other ranchers found markets for their cattle to the east – in the fall of 1875, North Okanagan rancher John Shaw was the first to drive cattle through the North Kootenay pass over the Rocky Mountains and into the North West Territories (now Alberta).⁵⁰ He found hungry officers from the Northwest Mounted Police in the prairie lands at Fort Calgary, and was able to sell nearly 400 head over the summer of 1876.⁵¹ Still others drove their cattle south, hoping to access American railheads that would transport their animal capital to the dominant North American livestock market of Chicago. Thaddeus Harper famously drove 800 head of cattle toward Billings, Montana from Kamloops in 1876, eventually selling them in San Francisco at an enormous profit, while J.B. Greaves successfully drove 4,000 head to Cheyenne, Wyoming in 1880, where they were transported by rail to the Chicago stockyards.⁵²

The relatively limited revenue that access to coastal markets in Victoria and New Westminster provided allowed ranchers and retailers like Harper and Cache Creek’s J.B. Greaves to gradually consolidate land holdings, buying out smaller ranching operations and augmenting their ranges and herds. Even though bands of cattle driven to the coast rarely exceeded one

⁴⁹ “British Columbia Market, Yates Street,” *The Daily British Colonist*, 9 March 1880.

⁵⁰ Mather, *Buckaroos and Mud Pups*, 87.

⁵¹ *Ibid.*

⁵² Judy Steves and Alastair McLean, “History of the Cattle Industry in British Columbia.” *Rangelands* 11, no. 2 (April 1989): 63.

hundred head, ranchers could still hope to earn around \$1000 in profit for a single trip to Victoria, which they quickly spent on expanded land leases and purchases.⁵³ Indeed, the recession years of the 1870s saw Greaves reinvest his earnings from coastal cattle drives, purchasing 1,000 acres along the Thompson River by the end of the decade.⁵⁴ Herds continued to grow on these expanded holdings – by 1881, the southern ranching district of Yale was home to “some fifty thousand cattle.”⁵⁵ Men like Greaves, Harper, and the Van Volkenburghs were thus well-placed to secure supply contracts for the lucrative railway market when, after almost ten years of false starts and controversy over the location of the line’s terminus, construction in the province finally began in the Fraser Canyon near Yale in May 1880.⁵⁶

The dynamite blast that marked the commencement of railway construction was a potent metaphor for the Interior cattle industry – after over a decade of stagnation, overgrazing and herd accumulation, markets exploded. Thaddeus Harper and the Van Volkenburgh brothers found themselves favorably positioned to supply beef to construction crews, as the provisioning demands of engineer Andrew Onderdonk’s five-thousand-man workforce handily outstripped the supply capabilities of smaller ranching operations. After acquiring CPR supply tenders, the combined ranching interest worked quickly through 1880 and 1881, buying out competing butchers and retailers and establishing distribution centers for beef and mutton at Yale and Victoria under the aegis of an incorporated “British Columbia Meat Market.”⁵⁷ Clement Cornwall, an upper-class British rancher near Ashcroft, secured tenders to supply construction crews near Lytton, where laborers consumed three hundred head of his cattle per month, bringing

⁵³ Thomas, “The British Columbia Ranching Frontier,” 98.

⁵⁴ Lutz, “Interlude or Industry?,” 8.

⁵⁵ Thomas, “The British Columbia Ranching Frontier,” 111.

⁵⁶ Jean Barman, *The West Beyond the West: A History of British Columbia* (Toronto: University of Toronto Press, 1991): 112.

⁵⁷ Thomas, “The British Columbia Ranching Frontier,” 112.

in yearly profits of nearly \$125,000.⁵⁸ Money was pouring in fast, and successful ranchers soon came to form a *de facto* landed gentry on the mainland, establishing strong connections to financiers and businessmen in the provincial capital in Victoria. Most notably, Cornwall, having expanded his business and political connections in these boom years, was appointed Lieutenant Governor of the province in 1881, and other ranchers consistently represented their respective districts (and protected their business interests) at the provincial legislature in the capital city.⁵⁹

The construction boom and the associated market it opened for the Interior's new 'cattle kings' ushered in moves toward range monopolies – those who secured supply contracts were able to significantly expand their land holdings through the first years of the decade, especially in the southern Interior Plateau around Kamloops, Ashcroft and Merritt. In the process, the role of cattle in the ranching settlement frontier inexorably shifted from “creatures of empire” to ‘beasts of capital,’ as the interior's growing ranches began to attract outside investment from Victoria, London and the United States. In 1882, J.B. Greaves contacted Benjamin van Volkenburgh, by now the largest supplier of the province's urban markets, with plans to corner the British Columbia cattle economy. Enlisting the financial wherewithal of Victoria's wealthy landowning class would be essential to the endeavor. In order to buy up enough cattle to fulfill the demands of the CPR construction teams as well as urban appetites, Greaves estimated they would require close to \$80,000. Using political connections gleaned through his dealings with the business community, Van Volkenburgh attracted the investments of wealthy ex-Surveyor General J.D. Pemberton, manager of the Bank of British Columbia William Curtis Ward, C.W. Thomson of

⁵⁸ Thomas, “The British Columbia Ranching Frontier,” 113.

⁵⁹ “Provincial Secretary's Office,” *The British Columbia Gazette* vol. 21,, 30 July 1881.

the Victoria Gas Company, and wealthy judge and former Gold Commissioner Peter O'Reilly, and quickly acquired the necessary funding.⁶⁰

With the financial backing of these elite Vancouver Island businessmen, Greaves won the supply contract for the CPR in February 1884, and his cattle were the first to be shipped on the completed Yale-Savona line to coastal markets.⁶¹ With the capital acquired from his lucrative supply contract, Greaves bought another 4,000 acres to add to his already-extensive range in the Nicola Valley, while Cariboo rancher Charles Beak bought 3,000 acres near Douglas Lake.⁶² The two men quickly became partners in the Victoria-funded syndicate, combining their landholdings to allow for more room to expand their herds and stave off overgrazing-based range degradation.⁶³ In the western Cariboo region of the Chilcotin, Thaddeus Harper purchased 8,000 acres, forming the nucleus of the Gang Ranch, while ranchers like North Okanagan's George Forbes Vernon bought out neighboring ranchers and "any available government land."⁶⁴ All told, over 1883 and 1884, cattle ranchers purchased over 100,000 acres of valley bottomland and bunchgrass plateau, establishing commercial ranching as one of British Columbia's most land-intensive settler industries.⁶⁵ Indeed, the Douglas Lake Cattle Company, incorporated in 1886 out of the land holdings of Greaves-Beak-Thomson-Ward syndicate, grew to encompass 450,000 acres over the turn of the century. Harper's Gang Ranch's holdings, bought by British syndicate the Western Canadian Ranching Company in 1888, grew to "approximately one million acres," including pastoral leases and de facto access to Crown rangeland.⁶⁶ These two ranches are some of the largest in Canada to this day – the Douglas Lake Cattle Company, near Merritt, BC,

⁶⁰ Lutz, "Interlude or Industry?," 8.

⁶¹ Ibid.

⁶² Mather, *Buckaroos and Mud Pups*, 105.

⁶³ Ibid, 106.

⁶⁴ Ibid.

⁶⁵ Ibid.

⁶⁶ "Important Meat Deal," *The Hedley Gazette*, 2 November 1905. See also Thistle, *Resettling the Range*, 37.

remains the leading working cattle ranch in terms of land held in Canada, with a total acreage of over 1.2 million acres.⁶⁷

As the ‘last spike’ was driven in the Canadian Pacific Railway line at Craigellachie, British Columbia in early November 1886, the ranchers and stock-raisers of the southern interior rejoiced. After years of recession and uncertain futures, reliable access to coastal and eastern markets was assured, and although their operations would face increasing competition from prairie producers in Alberta and Saskatchewan over the coming decades, for now their business interests seemed safe – especially as demand on the Lower Fraser and Vancouver Island boomed. With the time-space compression and easy accessibility afforded by the CPR, cattle could be shipped in large herds quickly and directly from railheads at Kamloops to coastal markets in Victoria without the long overland drives and river voyages that had characterized the earlier recession years of the industry.⁶⁸ Indeed, by one *Colonist* reporter’s estimate, the railway allowed for “from \$25,000 to \$30,000 worth of cattle” to be brought from the “stock ranges” each month, representing “over 500 head.”⁶⁹ By the first decade of the twentieth century, interior ranchers shipped an estimated one million dollars’ worth of cattle to the coast markets each year, and almost 85,000 beef cattle were enumerated in the 1911 Dominion census for the Yale and Cariboo districts.⁷⁰ The growing number of beef consumers on Vancouver Island were pleased with the “superiority” and domestic provenance of the meat available for purchase – one commenting that “we have in this country the best beef cattle on the coast.”⁷¹

⁶⁷ The Douglas Lake Cattle Company, “Ranch Operations in Modern Times,” www.douglaslake.com/ranch.

⁶⁸ Steves and McLean, “History of the Cattle Industry in British Columbia,” 63.

⁶⁹ “Closing the Railway,” *The Daily British Colonist*, 2 December 1885.

⁷⁰ “Provincial News,” *The Daily Colonist*, 21 September 1909. See also Table VII. “Live stock on Farms, 1911” *Fifth Census of Canada 1911: Volume IV: Agriculture*, (Ottawa: J. de L. Taché, 1914): 338.

⁷¹ “Imported Cattle,” *The Daily British Colonist*, 30 January 1886.

The efficient wholesale transport of cattle to Victoria’s butchers and processors allowed for the ostentatious shows of commoditized flesh that opened this chapter and contributed to lowered prices for domestic beef products until the outbreak of the First World War.⁷² It also changed the way animals moved to and through the urban and peri-urban spaces of Victoria – with such a steady supply of animals landing on Vancouver Island each month, butchers began to construct slaughterhouses and feedlots outside city limits (and away from the prying eyes of the city’s Board of Health) to accommodate larger herds of livestock in case of market fluctuations. Lawrence Goodacre of the Queen’s Market established “a 300-acre ranch” between Saanich’s Mount Tolmie and Cedar Hill [PKOLS] on Richmond Road,” where he employed eighteen assistants “daily slaughtering...from six to eight cattle,” while the British Columbia Market Company, at its slaughterhouses near Cadboro Bay (on the current site of the Royal Victoria Yacht Club), was “kill[ing] a monthly average of about 100 cattle, 500 sheep, and a large number of lambs, hogs, etc” by 1895.⁷³ Allan Stevens of the People’s Market at 99 Johnson Street erected slaughterhouses and processing facilities on “the Burnside road” north of the city, as did Robert Porter of Porter & Sons Island Market.⁷⁴ Cattle were delivered by CPR steamer to Victoria’s Outer Wharf after 1886, and driven along Dallas Road on Victoria’s southern coast to butchers’ feedlots and slaughterhouses, circumventing the city’s busy streets and largely remaining out of consumer sightlines. Slaughter similarly took place outside of city limits, and carcasses were delivered – often already broken down into quarters or “primal cuts” – to retail and wholesale butcher shops by horse-drawn butchers’ carts.⁷⁵

⁷² “Family Market Report,” *The Daily British Colonist*, 27 November 1886, “The Retail Markets,” *The Daily British Colonist*, 18 February 1897.

⁷³ “Local News,” *The Daily Colonist*, 5 February 1905; “Fathers of the Country – Its Wholesale Merchants Furnish Its History,” *The Daily Colonist*, 5 April 1896.

⁷⁴ *Ibid.*

⁷⁵ “A Small Runaway,” *The Daily Colonist*, 18 November 1892.

Retail outlets themselves began to change, too. In 1895, the British Columbia Market Company opened its new flagship store on Government and Yates Streets, boasting of their “improved methods” of retail.⁷⁶ In renovating the space, they added “a large cold storage department” where “several days’ supply of meat [could] be kept in prime condition.” Far from the sawdust-strewn floors and whole hanging animals of previous years, marble cutting slabs and plate glass display windows featured prominently in the store, displaying cleaned and dressed “choice” cuts of meat.⁷⁷ By 1909, the Vancouver and Prince Rupert Meat Company had begun to supply various butchers’ establishments like the Victoria Market, Douglas Market, and Niagara Market, featuring “healthy, wholesome, and cleanly handled meats from the hoof to [the] table.”⁷⁸ The company boasted that they bought “only the very best cattle produced in the famous Bunch Grass Districts of Nicola, Ashcroft and Kamloops,” and slaughtered them at their “new, modern abattoir” in Vancouver.⁷⁹ Animal carcasses were then shipped from Vancouver to Victoria inside “refrigerator cars built...for the purpose,” and housed at “a thoroughly modern cold storage plant” at 586 Johnson Street.⁸⁰ As the locus of pasturing, slaughtering and processing of cattle moved away from city limits and eventually across the Salish Sea, new supply chains began to take shape, masking the provenance of Victoria’s meat supply and the rising social and ecological cost of beef consumption.

By the early 1900s, it was becoming increasingly clear that overgrazing and trampling of BC’s interior grasslands was reaching a critical point. Range scientists and managers estimated that the carrying capacity of many ranges “was probably one-tenth of what it had been” in the

⁷⁶ “Model Markets,” *The Daily Colonist*, 31 May 1895.

⁷⁷ *Ibid.*

⁷⁸ “To Meat Consumers of Victoria and Vicinity,” *The Daily Colonist*, 27 August 1909.

⁷⁹ *Ibid.*

⁸⁰ *Ibid.*

1870s.⁸¹ The near collapse of bunchgrass ecosystems led ranchers to intensify grazing in wooded uplands, and begin to irrigate valley bottoms to produce enough hay to overwinter their herds. Irruptions of immense swarms of grasshoppers also became more common from the Nicola Valley north to the Chilcotin, as bunchgrass landscapes denuded by overgrazing and damaged by trampling allowed the insects to deposit “countless” eggs in the disturbed soil.⁸² The throngs of grasshoppers ravaged bunchgrass and stored hay stocks in the Interior Plateau repeatedly over the turn of the century, leading to increasing federal government intervention and the eventual establishment of range management programs via the “1919 Grazing Act.”⁸³ Indigenous communities on reserve lands, who often faced narrowed ecological margins, limited access to winter range and irrigation and reduced hay storage capabilities, were hardest hit by this negative externality of the settler livestock industry. Range operators of the region’s cattle syndicates unrelentingly siphoned vast quantities of water from the interior’s watercourses for to irrigate their hay fields, limiting access to clean water for Indigenous communities and smaller ranches and continuing a biogeography of dispossession instigated with the opening of the cattle frontier. Cattle grazing along river bottoms, especially those upstream from marginalized reserve communities, continue to alter the channel morphologies of watercourses, grazing down riverside vegetation and contributing to the erosion of sediment into rivers and streams, while native trout populations continue to decline due to cattle-instigated environmental changes well into the present day.⁸⁴

⁸¹ Thistle, *Resettling the Range*, 131.

⁸² *Ibid.*, 88.

⁸³ Steves and McLean, “History of the Cattle Industry in British Columbia,” 63. See also Fleischer, “Ecological Costs of Grazing,” 636. These ‘range improvement’ programs, which aimed to redress the ecological damage inflicted by grazing livestock, often resorted to reseeding programs, introducing non-native species like crested wheatgrass that further donated to the destruction of bunchgrass communities.

⁸⁴ Fleischer, “Ecological Costs of Grazing,” 635.

British Columbia's cattle ranching industry, as an outgrowth of the Victoria-directed mainland settlement frontier, thus came to define as well as profoundly alter the spaces and ecologies of the southern Interior Plateau over the turn of the century. As enormous populations of livestock flooded into the region over the gold rush years, they extended the boundaries of settlement, underpinning forceful settler claims to Indigenous ancestral territories. As the mining market gradually slid into recession over the 1870s, stock populations on interior rangeland began to instigate sweeping changes in the land, grazing down native bunchgrasses and introducing competing flora that quickly began to edge out the grazing base the industry relied on. Access to Victoria markets seemed to provide a pressure valve of sorts, allowing ranchers to market their cattle in the capital city by way of intensive overland cattle drives and acquire greater tracts of land in the process. Especially with the construction of the transcontinental railway, cattle quickly became the basis for metropolitan capital investment and consolidation of industrialized meat production, further degrading rangeland and donating to a biogeography of dispossession that saw Indigenous communities increasingly marginalized by the gathering momentum of the livestock industry. The reorganization of supply chains over the late-nineteenth and turn of the twentieth century with the advent of the Canadian Pacific Railway masked the provenance of Victoria's beef, as cattle were no longer driven through city streets, and new technological developments in cold storage and retail butchery further shielded consumers from the means of their food's production. This allowed the city's ecological footprint to extend in relative invisibility further and further into the bunchgrass ranges, making a resource hinterland out of the British Columbia interior and refashioning its animal colonizers and companions as commodified, concealed flesh, even as ecological ramifications of the cattle industry continued to mount well into the next century.

“I Think the Prevailing Love for High Fences is Overdone:”

Epilogue; Making Human Urban Spaces of Consumption

In November of 1907, John Charles Olmsted, of the prestigious Olmsted Brothers landscape architecture firm based in Brookline, Massachusetts, began to reimagine Victoria. From his lodgings at the Oak Bay Hotel in the growing city suburb, Olmsted surveyed the rocky beaches and oak thickets of the island’s southern coastline on foot, plotting out a new residential suburb that would, one *Colonist* reporter predicted, “become in a very few years one of the most beautiful suburban localities in the whole of America.”¹ Olmsted had been hired by William Hicks Gardner, a Winnipeg businessman, to devise a residential design for a soon-to-be-purchased subdivision of the Hudson’s Bay Company’s Uplands Farm. Inspired by the “natural charm” of the landscape, Olmsted envisioned a ‘residential garden,’ complete with unobstructed ocean views and unfenced lawns, large lots and serpentine streets. It was a dramatic reimagination of space – especially as the 1,118-acre Uplands Farm had been largely used as pasture by the Hudson’s Bay Company since 1852 and had only recently ceased functioning as a feedlot and disembarking point for cattle shipped by steamer from the mainland.

Olmsted’s vision of a residential garden fundamentally relied on the absence of animal bodies. Indeed, the architect remarked during his 1907 visit that “the prevailing love for flowers and shrubbery [in Victoria] immediately strikes one...however, I think that the prevailing love for high fences seems to be overdone.”² He suggested to the Hudson’s Bay Company land

¹ “A Beautiful Suburb,” *The Daily Colonist*, 9 February 1908.

² “Subdivision Plans for Uplands Farm,” *The Daily Colonist*, 14 November 1907

vendors that “they place in every deed of sale certain restrictions as to the height of the fence,” a recommendation that they apparently adopted in future land sales, which stipulated that “no fence higher than four feet may be built in front of the building line.”³ The erection of high fences, of course, had become common practice for a very specific reason: to keep marauding cattle, hogs and goats out of kitchen gardens and private property. The gradual disappearance of animals from the city’s growing urban and suburban spaces over the turn of the century thus allowed for the dramatic reimagining of space and culture that Olmsted’s Uplands neighborhood exemplified.

Indeed, Victoria’s urban and growing suburban space had undergone a gradual, yet significant, transformation over the latter decades of the nineteenth century. From a settler colony precariously perched in the midst of dispossessed Lekwungen territories, reliant on animal bodies for labor, sustenance, and the promise of future prosperity, Victoria had slowly been emptied of its animal residents as the colony grew in size and influence. Cattle, sheep, hogs and horses set out the boundaries of the city’s soon-to-be urban space and introduced retaliatory colonial justice and British common law to Lekwungen ancestral territories, instigating and solidifying a process of dispossession that continues to this day. Indeed, Victoria’s beginnings as a site for commercial agriculture under PSAC largely made an animal space of the colonial settlement.

Population pressure and demographic growth following the 1858 and 1862 gold rushes transformed the site from a primarily agricultural and fur-trading colony into a bustling hub of commerce, settlement and governance, and city councilmen and provincial legislators were soon forced to reckon with (and regulate) the conflict between the present necessities of subsistence

³ “Subdivision Plans for Uplands Farm,” *The Daily Colonist*, 14 November 1907.

livelihoods and the promise of a 'modern' commercial and industrial future. Select nonhumans, like settlers' vital milch cattle, found places in the town's anthrozootic animal commons through these years of growth, while species more likely to cause real or imagined damage to taxpayer property were quickly confined to enclosures, moved into more rural areas outside city limits, or shot in the streets. Some animals, such as beef cattle imported to the town's wharves and driven through the confined spaces of urban streets, or semi-feral horned cattle in the town's outskirts, presented terrifying and dangerous, yet necessary obstacles for the city's residents. Others, like the hogs of the Johnson Street gully, marked urban space along racial and cultural lines and faced heightened scrutiny and legal censure as the city fathers and middle-class city dwellers began to enforce an idealized, racially homogeneous and sanitary vision of Anglo-European urban settler space.

Livestock presented a host of less obvious, more insidious dangers to urban residents, too. The presence of animals in urban spaces created a host of perceived threats to city dwellers' health and well-being, including the zombie liminality of stench and the production of miasma and decaying organic matter. In fact, the lives and deaths of urban livestock profoundly influenced the ways that residents understood and negotiated city spaces, creating 'smellscapes' and leading to the rise of proto-zoning ordinances and rudimentary city planning to confine and order the olfactory geographies of the industrializing city. While milch cattle were vital necessities to the city's families through the early decades of Victoria's growth, providing milk, cheese, butter and companionship, new ways of seeing and understanding disease led to their eventual displacement from urban households and backyards over the turn of the century, as the rise of expert medical authorities and sanitary reformers led to redoubled scrutiny of animal products and the rise of well-capitalized, sanitary dairies and supply chains.

All the while, a nonhuman frontier was expanding steadily eastward into the province's Interior Plateau, bringing settlement, expansive ranch-based pastoralism, and enormous droves of cattle to the ancestral Indigenous territories of the mainland. As markets slowed and herds accumulated in the fragile bunchgrass ecosystems of the interior, widespread degradation of rangeland and destruction of native bunchgrass species, coupled with the introduction of invasive non-native species of flora, caused sweeping changes in the land and profound impacts to Indigenous livelihoods and socio-economic fabrics. A demand for domestic beef from the major coastal market in Victoria provided a pressure valve to offset overgrazing and overstocking, and the enormous appetite that the city demonstrated for bunchgrass-fed beef, combined with the demands of construction teams establishing a transcontinental rail link, led to range consolidation, investment from city businessmen, and an increased capitalization and commoditization of livestock flesh. Reorganization of supply chains, slaughterhouses, and transportation links away from city spaces over the turn of the century, coupled with advances in cold storage and retail technologies, would continue to decouple flesh from animal, as Victorians saw less and less of the nonhumans they relied on for food. The ecological footprint of the city spread further and further inland through the years of its growth, outsourcing animal labor and reifying divisions between city (as space of consumption) and country (as space of production).

Victoria is widely regarded as a "Garden City," a genteel outpost of colonial culture and society on Canada's west coast that has been characterized by one historian as "more English than the English."⁴ It was not always this way, however. The negotiations, conflicts, and transformations the city underwent over the course of the nineteenth and early twentieth centuries set the groundwork for modern food supply chains, for popular imaginations of urban

⁴ See Terry Reksten, *More English than the English: A Very Social History of Victoria* (Victoria: Orca, 1986)

spaces, and for the widespread socio-ecological devastation that industrialized livestock husbandry continues to inflict across Canada and the world. Put simply, the gradual disappearance of animal bodies from city spaces, where the majority of British Columbia's humans live, has erected an artificial conceptual divide between city and country, urban and rural. Food production is something that happens "out there" somewhere, while Western city dwellers' relationship to nonhuman bodies is most often consumptive. We consume images of animals on television and in zoos, representations of animals in media and art, and enormous quantities of animal flesh at dinner tables, restaurants and grocery stores, yet we rarely devote thought to the means of production. Yet at the time of writing, global society has been faced with an unprecedented pandemic, which has slowed capital markets to a standstill and is beginning to expose the cracks and fault lines in slaughter and meat supply networks across North America and the world. It has also caused many city residents to take up gardening and small-scale food production from the space of the home, reimagining their urban spaces as sites of community production as well as consumption. Perhaps, by studying the animal histories of how cities came to be configured through the lenses of dispossession, capital, property and human consumption, we can think our way to a more productive, ecologically just, and socially responsible future. If not, at least it makes for good stories.

Bibliography

Chapter 1: “Beasts in the Garden (City)”

- Anderson, Virginia DeJohn. *Creatures of Empire: How Domestic Animals Transformed Early America*. New York: Oxford University Press, 2004.
- Atkins, Peter (ed). *Animal Cities: Beastly Urban Histories*. Farnham: Ashgate Publishing Co., 2012.
- Beattie, James, Edward Melillo and Emily O’Gorman. *Eco-Cultural Networks and the British Empire*. Bloomsbury: London & New York, 2015.
- Beckwith, Brenda Raye. “*The Queen Root of This Clime*”: *Ethnoecological Investigations of Blue Camas and its Landscapes on Southern Vancouver Island, British Columbia*. PhD dissertation, University of Victoria, 2004.
- Bradbury, Bettina. “Pigs, Cows, and Boarders: Non-Wage Forms of Survival Among Montreal Families, 1861-91.” *Labour/Le Travail* 14 (1984): 9-46.
- Bradury, Bettina. *Working Families: Age, Gender, and Daily Survival in Industrializing Montreal*. Toronto: University of Toronto Press, 1993.
- Brown, Frederick. *The City is More than Human: An Animal History of Seattle*. Seattle: University of Washington Press, 2016.
- Cleverley, Bill. “Ban horse-drawn carriages on Victoria streets by 2023, Coun. Ben Isitt says.” *The Times Colonist*, May 14, 2019.
- Comaroff, Jean and John Comaroff. *Of Revelation and Revolution: Christianity, Colonialism, and Consciousness, Volume One*. Chicago: University of Chicago Press, 1991.
- Cronon, William. *Nature’s Metropolis: Chicago and the Great West*. New York: W.W. Norton & Co., 1992.
- Cronon, William. “The Trouble with Wilderness: Or, Getting Back to the Wrong Nature.” *Environmental History* 1, no. 1 (January, 1996): 7-28.
- Green, Valerie. *Above Stairs: Social Life in Upper Class Victoria, 1843-1918*. Victoria: Sono Nis Press, 1995.
- Harvey, David “The Right to the City.” *New Left Review* 53 (September/October 2008): 23-40.
- Hribal, Jason C. “Animals, agency, and class: writing the history of animals from below.” *Human Ecology Review* 14, no. 1 (May 2007): 101-112.
- Ingram, Darcy, Christabelle Sethna, and Joanna Dean (eds). *Animal Metropolis: Histories of Human-Animal Relations in Urban Canada*. Calgary: University of Calgary Press, 2016.
- Kheraj, Sean. “Urban Environments and the Animal Nuisance: Domestic Livestock Regulation in Nineteenth-Century Canadian Cities.” *Urban History Review* 44, no. 1-2 (Spring 2016): 37-55.
- Kheraj, Sean. “The Great Epizootic of 1872-3: Networks of Animal Disease in North American Urban Environments.” *Environmental History* 23, no. 3 (July 2018): 495-521.
- Kiechle, Melanie. “Navigating by Nose: Fresh Air, Stench Nuisance, and the Urban Environment, 1840-1880.” *Journal of Urban History* 42, no. 4 (2016): 752-771.
- Latour, Bruno. *Reassembling the Social: An Introduction to Actor-Network Theory*. Oxford: Oxford University Press, 2005.
- Lefebvre, Henri. *La production de l’espace*. Tr. Donald Nicholson-Smith. Oxford: Blackwell, 1991.

- Mackie, Richard. "The Colonization of Vancouver Island, 1849-1858," *BC Studies* 96 (Winter 1992): 8.
- McNeur, Catherine. *Taming Manhattan: Environmental Battles in the Antebellum City*. Cambridge: Harvard University Press, 2014.
- McNeur, Catherine. "'The Swinish Multitude': Controversies over Hogs in Antebellum New York City." *Journal of Urban History* 37, no. 5 (2011): 639-660.
- McShane, Clay and Joel A. Tarr. *The Horse in the City: Living Machines in the Nineteenth Century*. Baltimore: Johns Hopkins University Press, 2007.
- Melosi, Martin V. *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present*. Baltimore: Johns Hopkins University Press, 1999.
- Miltenberger, Scott. "Viewing the Anthrozootic City: Humans, Domesticated Animals, and the Making of Early Nineteenth-Century New York," in *The Historical Animal*. Ed. Susan Nance. Syracuse: Syracuse University Press, 2015.
- Nance, Susan. *The Historical Animal*. Syracuse: Syracuse University Press, 2015.
- Philo, Chris. "Animals, geography, and the city: notes on inclusions and exclusions." *Environment and Planning D: Society and Space* 13 (1995): 655-681.
- Philo, Chris, and Chris Wilbert (eds). *Animal Spaces, Beastly Places: New Geographies of Human-Animal Relations*. London: Routledge, 2000.
- Porteous, J. Douglas. "Smellscape." *Progress in Physical Geography: Earth and Environment* 9, no. 3 (September 1985): 356-378.
- Ritvo, Harriet. *The Animal Estate: The English and Other Creatures in the Victorian Age*. Cambridge: Harvard University Press, 1987.
- Ritvo, Harriet. "Animal Planet." *Environmental History* 9, no. 2 (April 2004): 204-220.
- Rosenberg, Gabriel. "A Race Suicide Among Hogs: The Biopolitics of Pork in the United States, 1865-1930." *American Quarterly* 68, no. 1 (March 2016): 49-73.
- Said, Edward. *Orientalism*. London: Penguin Books, 1978.
- Scott, James C. *Weapons of the Weak: Everyday Forms of Peasant Resistance*. New Haven: Yale University Press, 1987.
- Specht, Joshua. "Animal History after its Triumph: Unexpected Animals, Evolutionary Approaches, and the Animal Lens." *History Compass* 14, no. 7 (2016): 326-336.
- Tarr, Joel A. "The Metabolism of the Industrial City." *Journal of Urban History* 28, no. 5 (July 2002): 511-545.

Chapter 2: "Beasts of Burden, Creatures of Empire"

- Anderson, Virginia DeJohn. *Creatures of Empire: How Domestic Animals Transformed Early America*. New York: Oxford University Press, 2004.
- Belcourt, Billy-Ray. "Animal Bodies, Colonial Subjects: (Re)Locating Animality in Decolonial Thought." *Societies* 5, no. 1 (2015): 1-11.
- Brown, Robert. "A Monograph of the Coniferous Genus Thuja, Linn., an of the North American Species of the Genus Libocedrus." *Transactions of the Botanical Society of Edinburgh* 27 (1868): 358-378.

- Brown, Robert. "On the Vegetable Products, used by the North-West American Indians as Food and Medicine, in the Arts, and in Superstitious Rites." *Transactions of the Botanical Society of Edinburgh* 27 (1868): 378-396.
- Burns, Flora Hamilton. "Victoria in the 1850s." *The Beaver* (December 1949):
- Coyle, Brian Charles. "The Puget's Sound Agricultural Company on Vancouver Island, 1847-1857." MA Thesis: Simon Fraser University, 1977.
- Despatch to London, Douglas to Pakington, 933, CO 305/3, 147, received 29 January 1853, [No. 8], Vancouver's Island, Fort Victoria, 11 November 1852.
- Douglas to Earl Grey, December 1852, National Archives of the UK, CO 305/3. *The Colonial Despatches of Vancouver Island and British Columbia 1846-1871*. Ed. James Hendrickson and the Colonial Despatches Project. Victoria: University of Victoria.
- Finlayson, Roderick. *Biography of Roderick Finlayson*. (n.p.: Victoria, 1891): 1-32.
- "Fort Victoria Journal." Hudson's Bay Company Archives, B. 226/a/1. Edited and transcribed by Graham Brazier et al, eds. *Fort Victoria Journal*, www.fortvictoriajournal.ca.
- Galbraith, John S. "The Early History of the Puget's Sound Agricultural Company, 1838-1843." *Oregon Historical Quarterly* 55, no. 3 (September 1954): 234-259.
- Gibson, James R. *Farming the Frontier: The Agricultural Opening of the Oregon Country, 1786-1846*. Vancouver: UBC Press, 1985.
- Glazebrook, George Parkin de Twenebroker (ed). *The Hargrave Correspondence, 1821-1843*. Toronto: The Champlain Society, 1938.
- Harris, Cole. *The Settlement of British Columbia: Essays on Colonialism and Geographical Change*. Vancouver: UBC Press, 1997.
- Harris, Cole. *Making Native Space: Colonialism, Resistance and Reserves in British Columbia*. Vancouver: UBC Press, 2003.
- Harris, Cole. "How Did Colonialism Dispossess? Comments from an Edge of Empire." *Annals of the Association of American Geographers* 94, no. 1 (March 2004): 165-182.
- Helmcken, John Sebastian. "In the Early Fifties." *The Victoria Daily Colonist*, 1 January 1889.
- Ishiguro, Laura. "Growing up and grown up [...] in our future city': Children and the Aspirational Politics of Settler Futurity in Colonial British Columbia." *BC Studies* 190 (Summer 2016): 15-37.
- Kingston, C.S. "Introduction of Cattle into the Pacific Northwest." *The Washington Historical Quarterly* 14, no. 3 (July 1923): 163-185.
- Lamb, W.K. "The Founding of Fort Victoria." *British Columbia Historical Quarterly* 7, no. 2 (April 1943): 71-92.
- Lamb, W.K. "Five Letters of Charles Ross, 1842-44." *British Columbia Historical Quarterly* 7, no. 2 (April 1943): 103-118.
- Lamb, W.K. "The Census of Vancouver Island, 1855." *British Columbia Historical Quarterly* 4 (1940): 51-58.
- Lamb, W.K. "The Diary of Robert Melrose, Part III." *British Columbia Historical Quarterly* 7, no. 4 (1943): 283-295.
- Locke, John. *The Second Treatise of Government*. Richard Cox ed. Wheeling: Harlan Davidson, 1982.
- Lutz, John Sutton. *Makúk: A New History of Aboriginal-White Relations*. Vancouver: UBC Press, 2009.
- Mackie, Richard. "The Colonization of Vancouver Island, 1849-1858." *BC Studies* 96 (Winter 1992-1993): 3-40.

- Mackie, Richard. *Trading Beyond the Mountains: The British Fur Trade on the Pacific, 1793-1843*. Vancouver: UBC Press, 1997.
- McKay, Joseph. "Reminisces." *The Daily British Colonist*, 18 April 1935.
- Nesbitt, James K. "The Diary of Martha Cheney Ella, 1853-1856." *British Columbia Historical Quarterly* 13, no. 2 (April 1949): 101-112.
- Pagett, Frank. "105 Years in Victoria and Saanich! Chief David Recalls White Man's Coming; 80 Years' Rent Unpaid." *Victoria Daily Times*, 14 July 1934.
- Royle, Stephen. *Company, Crown, and Colony: The Hudson's Bay Company and Territorial Endeavour in Western Canada*. London: I.B. Tauris & Co., 2011.
- Schafer, Joseph. "Documents Relative to Warre and Vavasour's Military Reconnaissance in Oregon Country, 1845-6." *The Quarterly of the Oregon Historical Society* 10, no. 1 (March 1909): 1-99.
- Seeman, Berthold. *Narrative of the Voyage of the H.M.S. Herald During the Years 1845-51*. London: Reeve & Co., 1853.
- Wolfe, Patrick. "Settler Colonialism and the Elimination of the Native." *Journal of Genocide Research* 8, no. 4 (2006): 387-409.

Chapter 3: "A Miserable Lot of Starved Brutes"

- Bancroft, Hubert Howe. *The Works of Hubert Howe Bancroft, Volume XXXII: History of British Columbia, 1792-1887*. San Francisco: The History Company, 1887.
- Blakey-Smith, Dorothy, ed. *The Reminiscences of Dr. John Sebastian Helmcken*. Vancouver: UBC Press, 1975.
- Bowsfield, Hartwell, ed. *Fort Victoria Letters, 1846-1851*. Winnipeg: Hudson's Bay Records Society, 1979.
- Bradbury, Bettina. "Pigs, Cows, and Boarders: Non-wage Forms of Survival Among Montreal Families, 1861-1891." *Labour/Le Travail* 14 (Fall 1984): 9-46.
- Brinkley, Catherine and Domenic Vitiello. "From Farm to Nuisance: Animal Agriculture and the Rise of Planning Regulation." *Journal of Planning History* 13, no. 2 (2014): 113-135.
- Brown, Frederick. *The City is More Than Human: An Animal History of Seattle*. Seattle: University of Washington Press, 2016.
- Carr, Emily. *Book of Small*. Vancouver: Douglas & McIntyre, 2004.
- Crease, Phillip, and Alston. *The Laws of British Columbia Consisting of the Acts, Ordinances, and Proclamations of the Formerly Separate Colonies of Vancouver Island and British Columbia, and of the United Colony of British Columbia*. Victoria: Government Printing Office, 1871.
- Dunae, Patrick A, Donald J. Lafreniere, Jason A. Gilliland, and John S. Lutz. "Dwelling Places and Social Spaces: Revealing the Environments of Urban Workers in Victoria Using Historical GIS." *Labour/Le Travail* 72 (Fall 2013): 37-73.
- Edmonds, Penelope. *Urbanizing Frontiers: Indigenous People and Settlers in Nineteenth-Century Pacific Rim Cities*. Vancouver: UBC Press, 2010.
- Gregson, Harry. *A History of Victoria, 1842-1970*. Victoria: J.J. Douglas Ltd, 1977.
- Ireland, Willard E. "Gold Rush Days in Victoria, 1858-1859." *The British Columbia Historical Quarterly* 12, no. 3 (July 1948): 231-246.
- Kheraj, Sean. "How Canadians Used to Live with Livestock in Cities," in *Calgary: City of Animals*, Jim Ellis ed. Calgary: University of Calgary Press, 2017.

- Lacy, Julia Frances. "Showing Respect: Death Rituals of the Chinese Community in Coastal British Columbia." MA Thesis, University of Victoria, 2016.
- Lutz, John Sutton. "After the Fur Trade: The Aboriginal Labouring Class of British Columbia, 1849-1890." *Journal of the Canadian Historical Association* 3, no. 1 (1992): 69-93.
- Lutz, John Sutton. "Interlude or Industry?: Ranching in British Columbia, 1859-1880. *British Columbia Historical News* 13, no. 4 (Summer 1980): 2-10.
- Mackie, Richard. "The Colonization of Vancouver Island, 1849-1858." *BC Studies* 96 (Winter 1992-1993): 3-40.
- Pemberton, Joseph Despard. *Facts and Figures Relating to Vancouver Island and British Columbia, Showing What to Expect and How to Get There; with Illustrative Maps*. London: Longman, Green, Longman and Roberts, 1860.
- Pettit, Sydney G. "The Trials and Tribulations of Edward Edwards Langford." *British Columbia Historical Quarterly* 17, no. 1 (January 1953): 5-40.
- Royle, Stephen. *Company, Crown and Colony: The Hudson Bay Company and Territorial Endeavour in Western Canada*. London: I.B. Tauris, 2011.
- Van Kirk, Sylvia. "Tracing the Fortunes of Five Founding Families of Victoria. *BC Studies* 115/116 (Autumn/Winter 1997/8): 149-180.
- Waddington, Alfred. *The Fraser Mines Vindicated: or, the History of Four Months*. Victoria: De Garro, 1858.

Chapter 4: "Death Lurks in the Milk Pail"

- Adami, J. George. "On the Significance of Bovine Tuberculosis and its Eradication and Prevention in Canada." *The Canadian Journal of Medicine and Surgery* (December 1899): 1-20.
- Blevins, Steve M. and Michael S. Bronze. "Robert Koch and the 'Golden Age' of Bacteriology." *International Journal of Infectious Diseases* 14 (2010): 744-751.
- Brown, Frederick L. *The City is More Than Human: An Animal History of Seattle*. Seattle: University of Washington Press, 2016.
- Cambau, E., and M. Drancourt. "Steps Towards the Discovery of *Mycobacterium Tuberculosis* by Robert Koch." *Clinical Microbial Infections* 20 (2014): 196-201.
- Carr, Emily. *The Book of Small*. Vancouver: Douglas & McIntyre, 2004.
- Gaynes, Robert. *Germ Theory: Medical Pioneers in Infectious Diseases*. Washington, D.C.: ASM Press, 2011.
- Good, Margaret and Anthony Duignan. "Perspectives on the History of Bovine TB and the Role of Tuberculin in Bovine TB Eradication." *Veterinary Medicine International* (2011): 1-11.
- Gossel, Patricia Peck. "Pasteur, Koch, and American Bacteriology." *History and Philosophy of the Life Sciences* 22, no. 1 (2000): 81-100.
- Hirst, L. Fabian. *The Conquest of the Plague: A Study of the Evolution of Epidemiology*. Oxford: Clarendon Press, 1953.
- Jenkins, Helen E., Courtney M. Yuen, Carly A. Rodriguez, Ruvandhi R. Nathavitharana, Megan M. McLaughlin, Peter Donald, Ben J. Marais, and Mercedes C. Becerra, in "Mortality Among Children Diagnosed with Tuberculosis: Systematic Review and Meta-Analysis." *The Lancet Infectious Diseases* 17, no. 3 (2017): 285-295.

- Johnson, Edwin ed. *The By-laws of the Corporation of the City of Victoria, British Columbia, 1889*. Victoria: Cohen's Printing Office, 1890.
- Kheraj, Sean. "The Great Epizootic of 1872-73: Networks of Animal Disease in North American Urban Environments." *Environmental History* 23, no. 3 (July 2018): 495-521.
- Kiechle, Melanie. "Navigating by Nose: Fresh Air, Stench Nuisance and the Urban Environment, 1840-1880." *Journal of Urban History* 42, no. 4 (2016): 753-771.
- McCuaig, Katherine. *The Weariness, the Fever, and the Fret: The Campaign Against Tuberculosis in Canada, 1900-1950*. Montreal and Kingston: McGill-Queen's University Press, 1999.
- McKay, Marion. "The Tubercular Cow Must Go: Business, Politics, and Winnipeg's Milk Supply, 1894-1922." *CBMH/BCHM* 23, no. 2 (2006): 355-380.
- Melosi, Martin V. *The Sanitary City: Urban Infrastructure in America from Colonial Times to Present*. Baltimore: Johns Hopkins University Press, 1999.
- Morens, David M., and Jeffery K. Tauenberger. "Historical Thoughts on Influenza Viral Ecosystems; or, Behold a Pale Horse, Dead Dogs, Failing Fowl and Sick Swine." *Influenza and Other Respiratory Viruses* 4, no. 6 (2010): 327-337.
- Olmstead, Alan L., and Paul W. Rhode. "An Impossible Undertaking: The Eradication of Bovine Tuberculosis in the United States." *The Journal of Economic History* 64, no. 3 (September 2004): 734-772.
- Reksten, Terry. *More English Than the English: A Very Social History of Victoria*. Victoria: Sono Nis Press, 2011.
- Watt, K Jane. *Milk Stories: A History of the Dairy Industry in British Columbia, 1827-2000*. Chilliwack: Fraser Valley Custom Printers, 2000.
- Wells, Andrew. "Antisocial Animals in the British Atlantic World: Liminality and Nuisance in Glasgow and New York City, 1660-1760" in *Animal History in the Modern City: Exploring Liminality*, Clemens Wischerman, Aline Steinbrecher and Philip Howell eds. (London: Bloomsbury Academic Press, 2019): 55-74.
- Provincial Board of Health of British Columbia. *First Report of the Provincial Board of Health of British Columbia*. Victoria, BC: Wolfenden Press, 1895.
- Provincial Department of Agriculture, British Columbia. *Fourth Report of the Department of Agriculture of the Province of British Columbia*. Victoria: Wolfenden Press, 1895.
- Provincial Department of Agriculture, British Columbia. *Fifth Report of the Department of Agriculture of the Province of British Columbia, 1895-96*. Victoria: Wolfenden Press, 1897.

Chapter 5: "The Bunch Grass Levels Where the Cattle Graze"

- Barman, Jean. *The West Beyond the West: A History of British Columbia*. Toronto: University of Toronto Press, 1991.
- Begg, Michael. "Legislating British Columbia: A History of B.C. Land Law, 1858-1978." MA Thesis. Vancouver: University of British Columbia, 2007.
- Grant, George M. *Ocean to Ocean: Sanford Fleming's Expedition Through Canada in 1872, Being a Diary Kept During a Journey from the Atlantic to the Pacific*. Toronto: James Campbell & Son, 1873.

- Fleischner, Thomas L. "Ecological Costs of Livestock Grazing in North America." *Conservation Biology* 8, no. 5 (September 1994): 629-644.
- Government of British Columbia. *Ordinances Passed by the Legislative Council of British Columbia During the Session from January to April 1865*. New Westminster: Government Printing Office, 1866.
- Harris, Cole. "The Native Land Policies of Governor James Douglas." *BC Studies* no. 174 (Summer 2012): 101-122.
- Harris, Cole and David Demeritt, "Farming and Rural Life" in *The Resettlement of British Columbia: Essays on Colonialism and Geographical Change*. Vancouver: UBC Press, 1997.
- Langevin, H.L. *Report of the Hon. H.L. Langevin, C.B., Minister of Public Works*. Ottawa: I.B. Taylor, 1872.
- Leonard, Frank. "'Eighth Wonder of the World:' The Cariboo Wagon Road as British Columbia's First Megaproject." *Journal of the Canadian Historical Association* 27, no. 1 (2016): 169-200.
- Lutz, John. "Interlude or Industry?: Ranching in British Columbia, 1859-1885." *BC Historical News* 13, no. 4 (Summer 1980): 2-11.
- Mather, Ken. *Buckaroos and Mud Pups: The Early Days of Ranching in British Columbia*. Vancouver: Heritage House, 2006.
- Matsui, Kenichi. "White Man Has No Right to Take Any of It: Secwepemc Water Rights in British Columbia." *Wicazo Sa Review* 20, no. 2 (Autumn 2005): 75-101.
- Ormsby, Margaret. "Agricultural Development in British Columbia." *Agricultural History* 19, no. 1 (January 1945): 11-20.
- Service, Robert William. "The Call of the Wild," in *The Spell of the Yukon and Other Verses*. New York: Barse & Hopkins, 1907.
- Steves, Judy, and Alastair McLean. "History of the Cattle Industry in British Columbia." *Rangelands* 11, no. 2 (April 1989): 62-64.
- Thomas, Gregory E.G. "The British Columbia Ranching Frontier: 1858-1896." MA Thesis. Vancouver: University of British Columbia, 1976.
- Thistle, John. *Resettling the Range: Animals, Ecologies and Human Communities in British Columbia*. Vancouver: UBC Press, 2015.
- Turner, Nancy J., Douglas Deur and Dana Lepofsky. "Plant Management Systems of British Columbia's First Peoples." *B.C. Studies* no. 179 (Autumn 2013): 107-133.
- Weir, Thomas R. *Ranching in the Southern Interior Plateau of British Columbia*, Memoir No. 4, Geographical Branch, Mines and Technical Surveys. Ottawa, Queen's Printer, 1955.

Epilogue: "I Think the Prevailing Love for High Fences is Overdone"

- Reksten, Terry. *More English than the English: A Very Social History of Victoria*. Victoria: Orca, 1986.