

Battle of the Bovines: Cattle, Colonialism, and the Conquest of the Bison

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On my honor as a University Student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments

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Introduction

Before European colonizers invaded Turtle Island, which would be renamed by the colonists to North America, bison ranged over 9.4 million kilometers squared with a total population between 30 to 60 million (National Park Service, 2017; World Wildlife Organization, n.d.). In colonialist terms, the bison ranged from the southern Alaskan taiga forests to the western grasslands of Mexico and from Nevada to Virginia (National Park Service, 2017). In the Great Plains region, bison are considered a keystone species due to their discriminatory grazing patterns that improve the diversity of Plains plants (Knapp, 1999). Prior to colonization, Plains Indigenous Nations relied on the bison for all facets of life. By the early 20th century, the 30 to 60 million bison population diminished to 1,000 due to colonial efforts. Current conservation efforts are returning the bison population to their ancestral ranges, but the impact of their destruction on Plains Indigenous Nations does not receive the same interest (National Park Service, 2017).

As bison populations declined, cattle populations boomed. Brought over by European colonists who desired familiar diets, cattle invaded Native grasslands, further diminishing the native bison populations. The Spanish first introduced cattle to the West Indies in 1493, and later into Mexico, Florida, and the southern United States. In 1541, the French introduced cattle to their settlements along the St. Lawrence River. The English introduced cattle to Virginia in 1611. The Dutch introduced cattle into settlements on the East Coast in 1625 (Bowling, 1941). The accessibility of stolen fertile grazing lands created an abundance of livestock and a culture of meat consumption (Cummins, 2019). 150 years later and it's hard to imagine an American life without cattle. Americans are obsessed with beef, making red meat the best-selling meat in the US (Taylor, 2019). America's obsession with beef is not without costs.

In this paper, I juxtapose bison and cattle as participating agents in the colonization of Turtle Island. European colonizers utilized both bovine species against Indigenous Nations as discussed further. Therefore, I propose defining bison and cattle as technologies in the framework of colonization due to their utilization and societal effects. This framework reveals the following research question: how did bison and cattle exist as technologies in the colonization of Turtle Island and what effects exist in present bison-dependent Indigenous Nations?

STS Framework

The Social Construction of Technology (SCOT) framework will provide a backbone that defines bison as an important technology to Plains Indigenous Nations and cattle and bison as a technology used in the colonialism of Turtle Island. The SCOT framework allows for the comparison of both cattle and bison as technologies utilized by the colonial empire in the US and Plains Indigenous Nations, respectively. I assess each bovine through the four elements of the SCOT framework. The first element is interpretive flexibility, which will place each technology's success as a multi-dimensional process dictated by societal circumstances. Additionally, I examine the impact of both bovine technologies on each relevant social group. The third element is closure and stabilization, in which I compare cattle and bison's current technological roles. Finally, I discuss the wider modern sociocultural context of each bovine in Indigenous food sovereignty.

While SCOT functions to highlight the existence of socially-driven technologies and thus serves well in colonialism discussions, there are some criticisms of SCOT's lack of dimensionality. One critique highlights that the SCOT framework places emphasis on agency and diminishes pre-existing structures that impact a technology's development. Another critique

is SCOT's pluralistic perspective, defining groups as equally represented in a technology's development. Obviously, there exists a disproportionate power structure between both European colonizers and Indigenous peoples, and the modern US government and Indigenous Nations. I address both critiques further and utilize them to support the argument (Klein and Kleinman, 2002).

Methods

To examine the aforementioned research question, I examine multiple sources. The destruction of the bison and the rise of America's beef obsession spans centuries of colonization. Thus, I utilize documentary research methods, which is the collection of peer-reviewed sources, to understand the complex interactions between colonists, cattle, bison, and Indigenous Nations. Sources include academic journals, Indigenous news articles, and global organizations. Certain keywords like "Indigenous Bison relationships", "American cattle industry", and "Colonial US history" were used to place bison and cattle as technologies in colonialism.

More importantly, Indigenous Nations and their citizens are not a monolith. When discussed, a Nation's beliefs and customs are attributed to the Nation. A single Nation's cultural beliefs and practices do not speak for the 574 federally recognized Nations in the US (National Congress of American Indians, n.d.). Further, an estimated 82 Nations have historical ties to the bison in the US (Mahdawi, 2022). This paper's scope extends to a few bison-dependent Indigenous Nations, but cannot speak to all bison-Indigenous relationships in every Nation. There are a few cultural beliefs like environmental stewardship that extend across all Indigenous knowledge that are discussed. Whenever possible, I utilize Indigenous sources.

Research

To examine the impact of bison and cattle as technologies utilized in the colonization of Turtle Island and current effects in present bison-dependent Indigenous Nations, I present diverse background information that surveys multiple aspects of European colonialism on Turtle Island. First, I discuss the difference in pedagogies and cosmological beliefs between the Indigenous Nations of Turtle Island and Christian Colonizers because these beliefs define the cultures of these two groups and thus, conflicts during colonialism. I further examine the Western relationship with domesticated livestock in comparison to Indigenous relationships with animals. I discuss the history of colonialism on Turtle Island, Manifest Destiny, and the forced relocation of Indigenous peoples onto reservations. I present supporting evidence that both cattle and bison were technologies utilized against the Indigenous Nations during these periods of history. Finally, I discuss the effects of exterminating bison and the influx of cattle onto Turtle Island soil as historic and current consequences on Indigenous Nations and the environment.

Cosmological Differences between European Colonists and Indigenous Nations

Creation stories thread through the structures of culture and nurture their foundational societal belief. In every beginning, there is creation. A cause for an effect. Abrahamic religions denote the will of God as the cause and the creation of the Earth as the effect. In the Bible (Christianity), God creates a “paradise on Earth”, the Garden of Eden for the first human, Adam, to live and care for the flora and fauna. His laws of the Garden of Eden are minimal: “You are free to eat from any tree in the garden; but you must not eat from the tree of the knowledge of good and evil, for when you eat of it you will surely die,” (*New International Version*, 1992, Gen. 2.16-17). God creates Eve, the first woman, to aid Adam in his care of the garden. Eve is deceived by a serpent and consumes the fruit from the tree of knowledge (*New International*

Version, 1992, Gen. 3.1-6). God casts Adam and Eve from the Garden of Eden for their sin, to survive on the soil of the Earth (*New International Version*, 1992, Gen. 3.23-24). “Paradise on Earth” is locked away from humanity.

Abrahamic religions define humans as creatures of sin. To enter Heaven in the afterlife, humans must not sin, or at least repent for the sins they do commit. The Garden of Eden is unlocked for those who repent. “Paradise on Earth” is a death away.

In Iroquois culture, the creation of the Earth, or Turtle Island, is told through the fall of Skywoman. Skywoman falls from Skyworld, clutching only a small bundle of branches— fruits and seeds of many plants. The geese of the dark waters below rise up to break her fall and a great turtle offers his back so that she does not drown. The creatures of the world recognize that Skywoman needs land for her home. One by one, creatures attempt to dive to the bottom of the water for mud. Muskrat sacrifices his life to give Skywoman the mud. Turtle offers his back for Skywoman’s home. Gracious for the creatures’ gifts, Skywoman sings in thanksgiving and dances on the mud. The land begins to grow until Earth is created. Skywoman is a good guest and does not come empty-handed. She spreads the fruits and seeds of her bundle so that the world becomes green (Kimmerer, 2013). Paradise is Earth.

Creation stories define the cosmologies and pedagogies of cultures. The religious and spiritual beliefs of people nurture their societal beliefs. Christianity, as an example, creates this belief in a paradise one must die to achieve. There are 574 federally recognized Indigenous Nations in the United States (National Congress of American Indians, n.d.). Each Nation maintains unique cultures built upon cosmologies. While not every Indigenous Nation begins their creation with Skywoman, there is a greater understanding of the Earth as a gift across cosmologies. There is a clear distinction between these two belief systems. One sees the Earth as

inherited from God, to consume and subdue to survive until death (Kimmerer, 2013). The other sees Turtle Island as a gift and a partnership between the plants, animals, and Mother Earth herself. Inheritance fosters a culture of expectations and greed. A gift.

In comparison, Western civilization, built on Christianity, establishes a hierarchy of beings. Creatures are utilized for human survival. In Indigenous knowledge, humans are “the younger brother of Creation” and must learn from other species for they have the wisdom and knowledge of time (Kimmerer, 2013). In the Western world, the domestication of livestock created private property (Engels, 1884). The subjugation of animals, as deemed by God’s word, created the backbone of a capitalistic society (Gen. 3.17-19 New International Version). As God commanded, people enacted His will over “lesser” creatures.

In Indigenous cultures, animals existed in a relationship. Lakota cosmologies tell the story of the first humans living in Wind Cave and how some were tricked by Iktomi, the trickster spirit, to prematurely leave the cave. Takaskanskan, the Creator, was furious and turned the people into the first bison. Once Takaskanskan instructed the humans to leave the cave, Takuskanskan instructed the first people to hunt the bison for survival (Davies, 2017). The Lakota, or Pte Oyate (Buffalo Nation), like the other Indigenous Nations, centered the bison, or Tatanka, in their culture (National Park Service, 2020). The Lakota followed the bison’s migration over the Great Plains. A bison’s sacrifice was utilized for food, Indigenous architecture, weapons, and other tools (Jawort, 2018). In exchange, because the bison are a gift from the Great Spirit and a relative, the Lakota cared for the bison through ceremonies and reciprocal care (Kern, 2011). Indigenous Nations would strategically burn sections of the grasslands for the bison as the bison preferred to graze on the plants grown on burned patches (Roos, 2018).

The Introduction and Expansion of Cattle to the Caribbean and Turtle Island

As settlers invaded Turtle Island, the belief that “land was property, real estate, capital, or natural resources” clashed against the Indigenous understanding of land as “identity, the connection to our ancestors, the home of our nonhuman kinfolk... the source of all that sustained” (Kimmerer, 2013). As colonization spread from the Caribbean to North and South America, commodities of the colonizers spread as well. In particular, cattle, an invasive species of Turtle Island, aided in European colonization. Cattle occupied inhospitable environments for the colonists, further expanding the sphere of colonial property. The cattle destroyed native flora, creating new environments for European grasses and plants to invade. Further, cattle supported the advancement of European Empires through their generated capital of meat, hide, and tallow (Ficek, 2019).

Cattle continued their agency in colonization in a few major ways through the nineteenth century. The United States acquired southwest territory, including Texas, in the 1848 Mexican-American War. This acquisition expanded the commercialization of cattle, further destroying the native grasslands (Horowitz, 26). In another manner, advancements in refrigeration technologies and the centralization of beef slaughtering in Chicago granted cattle access to grazing in the Great Plains along their transit (Horowitz, 2006). Further, cattle ranchers expanded to the Great Plains as the bison population declined and Indigenous people were displaced onto reservations. This joint influence of transit to beef processing plants in the Midwest and the development of cattle ranches on the Great Plains led to the destruction of the native grasslands, further reducing the bison population (Ficek, 2019).

Further, Manifest Destiny began to pressure Plains Indigenous Nations into reservations from 1850 to 1887 (Howard Law, 2023). Unsurprisingly, the Indigenous Nations of the Great

Plains did not settle on reservations willingly. Pressure increased further in the 1860s when settlers discovered gold in the Montana Territory and developed the Bozeman Trail. The Bozeman Trail cut through Lakota sacred grounds and bison hunting grounds. After a few skirmishes and the Fetterman Massacre, in which 80 US Army soldiers and Captain William J. Fetterman were killed, the US government began to brainstorm other techniques to force Indigenous peoples off their grounds. US Army General William Tecumseh Sherman devised a plot against the Indigenous peoples of the Great Plains (Jawort, 2018). General Dodge best succinctly summarizes this plan in his words: “Kill every buffalo you can! Every buffalo dead is an Indian gone” (Native Philanthropy, n.d.). Against millions of bison, General Sherman and the US Army supported wealthy hunters through lodging, finances, horses, and supplies in a Grand Buffalo Hunt (Phippen, 2016). In over two years, four million buffalo were killed. By the 1880s, more than 30 million bison had been killed. The bison was almost extinct. The Indigenous Nations of the Plains starved and settled on reservations (Native Philanthropy, n.d.).

Consequences of the Extermination of the Bison

The consequences of the bison’s extermination extended into all facets of Indigenous life. Financially, bison were a reliable source of capital for the Nations. Plains Indigenous societies were some of the richest in Turtle Island, with household living standards higher than the average European household (Carlos and Frank, 2010). The destruction of the bison meant a parallel destruction of their capital. With the rise of cattle ranching in native bison lands, a natural shift of capital would align with cattle. However, US laws implemented laws that restricted access to capital markets for Indigenous peoples until the 1960s, thus preventing Indigenous cattle ranchers from competing with colonial cattle ranchers. This restriction of capital on bison-dependent Indigenous Nations extends into the 21st century. Census reports

from 1910 and 1930 report lower occupational rank relative to non-bison-dependent Indigenous Nations. Census reports from 2000 show this continuation of wealth disparity as bison-depending Indigenous Nations suffered 30% lower per capita income on reservations compared to non-bison-dependent Nations (Feir, 2017).

The forced removal of bison-dependent Indigenous Nations from their lands had far-reaching consequences on their health and well-being. As Indigenous Nations were forced onto reservations, often thousands of miles away from their ancestral place of belonging, they lost their traditional lifestyle. Further, the US government officials did not uphold the treaties' requirements to distribute agricultural supplies to remote reservations. Reservations became food deserts (Eschner, 2020). However, the US government did supply governmental rations to the Indigenous Nations. The rations were commodity foods and were far from Indigenous ways of life. The Food Distribution Program on Indian Reservations (FDPIR), a US Department of Agriculture program, shipped bleached flour, processed meat, refined sugar, and other non-Indigenous foods to the reservations (Warne and Wescott, 2019). Often, the food arrived rotten and moldy (Murphy, 2021). The lack of nutritional value and high-calorie contents of commodities foods created a nutrition-related health calamity for Indigenous Nations (Warne and Wescott, 2019). Presently, Indigenous peoples are 1.6 times more likely to be obese in comparison to White Americans, with 33% of the Indigenous population obese. Indigenous peoples are the largest group in the US to have Type II diabetes (16.1%) (Goetz, 2012). Cardiovascular disease rates are 50% higher in Indigenous populations than in White American populations (American Heart Association, 2020).

The destruction of the bison and the rise of cattle populations has detrimental effects on the environment. Presently, cattle inhabit nearly half the land in the United States and the large

population has disastrous consequences for the environment (Quinton, 2019). Cattle are culprits of greenhouse gas (GHG) emissions, specifically methane, through feed digestion and manure deposition. While the livestock industry as a whole contributes to 14.5 percent of anthropogenic greenhouse gas emissions, dairy cattle and other ruminates contribute 4 percent and meat cattle contribute an additional 2 percent in the US (Quinton, 2019). Once methane is absorbed into the atmosphere, the compound is 80 times more effective at trapping heat than carbon dioxide, accelerating climate change. Further, cattle are an invasive species of the Americas, and their destruction of native vegetation leads to a decrease in carbon sinks in the environment. As cattle graze native plants, they create an environment favorable for non-native grasses that are not as efficient in capturing carbon as native grasses. Additionally, cattle destruction of deciduous tree species from grazing and trampling leads to warmer microclimates and lower soil water retention capacities, resulting in an overall warmer and drier climate in the Western US (Kauffman, 2022).

Current Conservation Efforts for Bison Populations

A land supporting 30 to 60 million bison transformed into a land supporting more than 100 million cattle over 150 years. The small population of surviving bison was protected by private citizens and national parks like Yellowstone (National Park Service, 2017). In Yellowstone, 23 bison survived the massacre, protected by federal laws and a remote valley (Hance, 2018). Conservation efforts are attempting to restore the bison's ecological role by transplanting bison back to historical ranges on cattle-used landscapes. Bison who are transplanted into large enough pastures, their grazing and movement behaviors are comparable to historic behaviors and result in a restored role in biodiversity (Kohl, 2013).

In Yellowstone National Park, the current bison population is 4,000 individuals (Hance, 2018). For many historically bison-dependent Indigenous Nations, the bison are finally returning

to their kin. Over the past three decades, the InterTribal Buffalo Council has distributed over 20,000 bison to Indigenous Nations (Hammel, 2022). In 2018, the Assiniboine and Sioux tribes of Fort Peck Reservation cared for the largest conservation herd of bison. The herd grew from 60 Yellowstone individuals to 340 in just a few years. Over the same period, the Fort Peck Reservation noticed a change in the environment— native birds and grasses thrived for the first time in over a century (Hance, 2018). In 2020, the Rosebud Economic Development Corporation (REDCO), the economic leadership of the Rosebud Sioux Tribe in South Dakota, purchased 28,000 acres of grassland to support 1,500 bison, the Wolakota Buffalo Range. The US Department of the Interior developed the 2020 Bison Conservation Initiative to support the Wolakota Buffalo Range and promised delivery of hundreds of bison over the next five years from various conservation efforts in national parks. The Wolakota project will raise the national percentage of Indigenous-owned bison by seven percent, a historic number (World Wildlife Fund, 2020).

Effects of the Return of the Bison on Indigenous Nations

For bison-dependent Indigenous Nations, the return of the bison is a step towards Indigenous food sovereignty. Food sovereignty is the ability of Indigenous peoples to gain control over their food resources, from production to consumption (US Department of the Interior Indian Affairs, n.d.). Food sovereignty promotes traditional diets, greater availability of food and agriculture markets on reservations, and protection of Indigenous health through native foodways. For a population that has historically survived on industrially processed foods, food sovereignty is the difference between life and death (US Department of Agriculture, 2022).

Discussion

The successes or failures of cattle and bison in the US are measured by population and ecological impacts and analyzed with a SCOT perspective. Pre-colonization bison populations were in a symbiotic relationship with Plains Indigenous Nations. The Indigenous peoples hunted bison for multiple resources and honored them in care and ceremony due to the Indigenous people's reliance on the bison. As a result, the bison-dependent Indigenous Nations supported the population of 30 to 60 million bison. The circumstances of colonization required cattle to serve multiple purposes. During colonization, European colonizers utilized cattle as technologies of drastic landscape shifts in multiple avenues. Used to European comforts, colonizers carried cattle across the Atlantic Ocean onto Turtle Island. Cattle provided meat and dairy products, capital for further colonization endeavors, and most importantly, colonizers themselves. The destruction of native environments created favorable conditions for colonial expansion. In exchange, European cattle were given unlimited access to unrestrained grazing lands. The grazing lands came at the expense of Indigenous agriculture, and for the bison ranges, the expense of the bison. The cattle invaded Indigenous lands that were often untouched by colonizers until the cattle destroyed the native flora. In the late 1800s, colonizers saw bison as a viable technology to force Indigenous Nations onto reservations. Not just simply bison, the US government saw the native Plains bovine as an agent to destroy, to subdue the Indigenous peoples. The loss of the bison led to the forced removal of Plains Indigenous Nations and harrowing socioeconomic and health effects still felt in the present day.

Without a doubt, cattle aided the European colonization of Turtle Island. Their impact is felt in American society today in every restaurant and fast food chain, and across their occupation in the Western US. Oddly enough, American culture honors bison as a symbol of

American strength and resilience. An animal once used to starve Indigenous peoples into submission is revered as an American icon. In 2016, President Barack Obama signed legislation that recognized the bison as the national animal (National Park Service, 2017). Unlike the colonizers of Turtle Island, Indigenous Nations never wavered from their strength in the bison, and current conservation efforts led by are seeing both positive environmental and health impacts on Indigenous reservations and their people.

While cattle populations still overpower bison populations, the rise in popularity of bison marks the beginning of a comparable technological role as food providers. The bison meat industry is growing in the US, gaining popularity through superior nutritional values over beef (Galbraith, 2014). Compared to beef products, bison meat is associated with lower rates of inflammation and cardiovascular disease (McDaniel, 2013). For Americans, bison currently serves as American icons and another red meat option. For Indigenous peoples, the bison remains their kin, food source, and strength.

The development of cattle in the US was successful due to the disproportionate power balance between European colonizers and Indigenous Nations, a dynamic often ignored in the SCOT framework. Indigenous Nations did not overhunt bison for thousands of years. The Indigenous structures of bison hunting are based on respect and sacrifice. In comparison, cattle were domesticated under European owners. The lack of respect and autonomy for European cattle created a system that only served humans. The disproportionate power balance is best exemplified by the annihilation of US bison populations during the late 1800s. Armed with US Army guns, and provisions, affluent hunters massacred millions of bison until only a few remained. The empty plains were primed for another herbivore with similar grazing behaviors. Americans, with seemingly unlimited land, developed a taste for beef products. Indigenous

peoples, who were forced onto reservations and into food deserts, lost their native bison hunts and received cheap, fatty canned beef products instead.

Cattle products like beef are considered commodity foods and support Indigenous food insecurity. With the adoption of a bison-centric diet, as conservation efforts increase the bison population, many Indigenous Nations are fighting against reliance on the US government for food. Further, the revival of native flora and fauna due to bison reintroductions creates an environment that mimics ancestral environments, promoting Indigenous agriculture, foodways, and healthy diets.

Conclusion & Future Directions

The destruction of the bison on the Great Plains continues to have long-reaching negative effects on the bison-dependent Indigenous Nations. Colonialism is often thought of as a human endeavor, but I examine the roles in colonialism that animals such as livestock play in colonialism. While cattle were not responsible for the agency they had in colonialism, European colonizers utilized cattle for their gain of new territories. In the 1800s, the US government sought methods to deal with the Indigenous population who refused to relocate to reservations. The decline of bison populations over the late 1800s created supportive environmental shifts for cattle, furthering colonialism into the western US. In the 21st century, cattle populations extend into the hundred million as beef products remain popular meat options for Americans.

At the same time, Indigenous-led conservation efforts are resulting in the return of bison to their ancestral lands. The bison's return exemplifies the strength, tenacity, and spiritual connection many Indigenous Nations have with their kin. For many Indigenous peoples, the return of the bison strengthens their identity as Indigenous. Current efforts are bringing the bison back to their human kin on previously-used cattle grazing pastures. Indigenous Nations have

future plans to return bison to their historic range, a development that benefits various Indigenous Nations and the environment (Johns, 2021).

On the environmental scale, the current effects of cattle production on the climate are disastrous and future effects will continue to drastically aid in climate change. Bison are able to create diverse ecosystems as a keystone species of Turtle Island. Biodiverse ecosystems are more resilient in a changing climate. Most importantly, as the bison return to their home and their kin, bison conservation will continue to rest in the hands of Indigenous peoples (Johns, 2021). Thus, bison-dependent Indigenous Nations will continue to advance in their goals of food sovereignty, a return to a historically-sustainable economy, and their place of belonging.

Resources

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